IET InspecDirect

User manual

www.theiet.org/inspecdirect

Contents

Contents 2
About Inspec Direct 5
Key features: 5
About Inspec 5
About the Inspec Archive 6
Customer support 6
Inspec Copyright Statement 6
Inspec Direct Pages 7
Home pages 7
Public Web site home page 7
Inspec Direct product home page 9
Search Pages 10
Quick Search page 10
Advanced Search page 12
Expert Search page 18
Record Display pages 22
Search Results page 22
Selected Records page 24
Current Record page 26
Refine Results page 28
Search Aid pages 30
Search Classification page 30
Browse Classification page 32
Search Thesaurus page 34
Thesaurus Term page 36
Search List of Journals page 38
Journal Details page 40
Personalisation Pages 42
My Searches page 42
My Folders page 47
My Current Record page 49
Personal Information page 50
Subscriptions page 51
Search Preferences page 53
Display Preferences page 55
Alerts Preferences page 59
Dialogue pages 60
General Comments 61
Header and Footer functionality 63
Header 63
Footer 63
Toolbar functionality 63
Main Page Navigation Toolbar 63
Sub-Page Navigation Toolbar 64

Search Options Toolbar 65
Record Navigation Toolbar 66
Common functionality 68
Record Display 68
Index Browsing 70
'Save Search' button 71
Search Aid Summary functionality 72
Save to Folder functionality 72
Download Records functionality 73
Print Records functionality 74
E-mail Records functionality 74
Analyse Records functionality 75
Logon functionality 76
Forgotten Password functionality 78
Subscribe/Re-subscribe functionality 78
Alert Generation functionality 80
Search Fields 80
List of Fields 80
Field Definitions 83
Document Type Codes 86
Treatment Codes 87
Languages 87
Search Hints 88
Field content searching 88
IN operator 88
Searching without operators 89
Search relations 89
Boolean operators 89
AND operator 89
OR operator 90
NOT operator 90
Complex searches 90
Proximity operator NEAR 90
Truncation and wild-cards 91
Search term precedence 92
Search term nesting 92
Exact phrase matches 93
Case-sensitive searching 93
Stop-words 93
Literal searching 94
American/British spellings and synonyms 94
Non-searchable characters 94
Special characters 94
Greek characters 95
Mathematical and other symbols 96
Fractions 97

European language characters 97
Chinese author and editor names 97
Corporate sources 98
Inspec Search Aids 98
Inspec Thesaurus 98
Thesaurus entries 98
Controlled Indexing terms – search tips 99
Inspec Classification 100
Classification Sections 101
Classification Codes 101
Classification Titles 102
Outline of the Inspec Classification 102
Inspec Classification – search tips 103
Inspec List of Journals 105
Former titles of journals 106
Abstracted-completely journals 106
Specialised Indexing Fields 106
Astronomical Object Indexing 106
Searching the Astronomical Object Index 106
Search examples 107
Numerical Data Indexing 107
Searching Numerical Data Indexing 108
Inspec Numerical Indexing Thesaurus 111
Chemical Indexing 120
Role indicators 120
Chemical Indexing terms 121
Searching Chemical Indexing 122

About Inspec Direct

Inspec Direct is a powerful research tool that provides access to the Inspec Database via the Web. Designed specifically for science and engineering researchers, students, and professionals from all backgrounds, Inspec Direct allows you to quickly find and analyse information from your desk.

The Inspec Direct search interface has a number of search options. These are accessed via tabs across the top of the screen. These allow you to choose between Quick Search, Advanced Search and Expert Search options and also to search Inspec's Thesaurus, Classification scheme and List of Journals to find terms to enhance search strategies. A comprehensive context-sensitive help system is available throughout Inspec Direct.

Key features:

- Inspec (1969 onwards) and Inspec Archive (1898–1968)
- Three different search levels: Quick, Advanced and Expert
- Search Aids and Index Browser to help pinpoint relevant search terms
- A range of sort and record display options
- Analysis of search results
- Export search results in multiple formats
- Updated weekly
- Personalisation features
- 'Custom Alerts' feature
- DOI linking to full-text articles
- Provides usage statistics
- OpenURL compatible
- Metasearch compatible

With Inspec Direct, users can find the relevant information to:

- Keep track of latest research
- Discover new product information
- Forecast technology and monitor industry trends
- Gain competitive intelligence
- Evaluate prior art for a patentability assessment

About Inspec

Inspec is the leading English language abstracting and indexing service providing information from the world's literature in:

- Physics
- Electrical engineering
- Electronics
- Communications
- Control engineering
- Computing
- Information technology
- Manufacturing
- Production engineering
- Mechanical engineering

Inspec scans over 5,000 journals and 2,500 conference proceedings, as well as numerous books, reports, standards and dissertations, adding around 840,000 records to the database each year. The database dates back to 1969 and contains nearly 15 million records.

About the Inspec Archive

The Inspec Archive contains the historical scientific records produced for the Science Abstracts series of journals during the period 1898-1968, which were the precursor to the Inspec Database. Initially they were available only in printed format, but the entire collection has been digitised and is available on Inspec Direct.

The Archive contains:

- Over 873,700 records
- Longer abstracts than today and tables, graphs and figures from the original source document in many cases
- The original value-added indexing and classifications
- Enhancements in the form of the nearest equivalent current Inspec Controlled Indexing Terms, Inspec Thesaurus and Inspec Classification Codes
- Conference proceedings, books, journals, reports and dissertations

The fully searchable electronic Inspec Archive Database represents the 176 volumes (and over 140,000 pages) of the printed Science Abstracts series of journals.

Customer support

A range of training options is available to help you get the best out of Inspec Direct, including an international programme of workshops, tailored in-house training or remote training sessions via the Internet. To request training or to discuss your needs further please contact you local Inspec office.

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Inspec Direct may be used for the subscribing organisation's own internal purposes only and that any other authorised users may use Inspec Direct for research purposes only.

Users may not copy or extract substantial parts of the Inspec database; nor carry out any systematic or programmatic downloading (e.g., the use of automated 'robots' or other means to download or attempt to download in a short time period large amounts of material from Inspec Direct such as all database records from large search results).

Users may not modify, adapt, merge, publish, transmit sell, lend, rent, commercially exploit or make available to any third party (including any subsidiary, parent company or any other related or affiliated company or organisation) the whole or any part of Inspec Direct or its databases.

While the IET believes that the contents of the Databases are an accurate representation or interpretation of the original materials from which the Databases have been drawn, the IET does not warrant that the Databases will be accurate, complete or error-free.

Inspec Direct Pages

Home pages

Public Web site home page

Contact us | Register
IET InspecDirect
Home
Subscription & trials
About InspecDirect
Content coverage & indexing
Features & functionality
News & service updates
Support & training
Go straight to the source
IET InspecDirect
Find the knowledge you're looking for... to fuel innovation
IET InspecDirect
Overview
Benefits
Institutional trials
Features
News Updates
Press Release
The Institution of Engineering and Technology (IET) today announced the forthcoming launch of Inspec Direct, a new web based platform.
Read more
Hot Topics
Highlights of selected abstracts from the Inspec database, covering new papers, research trends and exciting new developments.
Read more
LOGIN
GO
Remember me | Forgotten password
Inspec Direct is the English-language bibliographic information service providing access to the world's scientific and technical literature via a new intuitive, precision research tool.
The new online platform will assist engineers, scientists and others in their research, to locate relevant journal articles, conference papers and other documents to drive discovery and innovation.
Benefits
You can get access to critical and timely information to aid your research priorities. Inspec Direct allows you to review work from...
Powerful functionality
The new Inspec platform incorporates extra functionalities that give the expert researcher the edge to get the results they need. Whether you're keen to...
Inspec Testimonials
We find Inspec invaluable because it covers all the best information sources in telecoms and computing. We trust it to keep our users informed and...
Accessibility | Privacy policy | Cookies | © Copyright 2007
Back to top

This page is the home page for the Inspec Direct system.

The page allows you to view sales information about the Inspec Direct system, logon, request a forgotten password reminder, purchase an annual subscription, purchase a 24-hour pass and request an institutional trial.

Field	Function
'Contact us' button	If you click on this, the 'Contact us' dialogue page will be displayed, enabling you to contact the IET.
'Register' button	If you click on this, the public Web site home page will be displayed, enabling you to register as a new Inspec Direct user.

‘Subscriptions & trials’ tab	Click on this if you want to request a free trial to Inspec Direct or to buy a full subscription to the product.
‘About Inspec Direct’ tab	Click on this to view introductory information about Inspec Direct.
‘Content, coverage & indexing’ tab	Click on this to find out about the Inspec Database.
‘Features and functionality’ tab	Click on this to take a quick look at how the Inspec Direct product works.
‘News & service updates’ tab	Click on this to look at the latest press releases from Inspec.
‘Support & training’ tab	Click on this to find out how you can receive training in how to use Inspec Direct.
‘LOGIN’ boxes	Type your User Name into the upper box and your Password into the lower box in order to access the Inspec Direct system.
‘Go’ button	Click on this button in order to complete the log-in process.
‘Remember me’ button	Click here to avoid having to enter your User Name and Password each time you want to access the system.
‘Forgotten password’ button	If you click on this button, a dialogue page is displayed asking you to enter either your User Name or your e-mail address. If the entered details are valid, a password reminder will be sent to your e-mail address, a message is displayed indicating that an e-mail has been sent, and a ‘Logon’ button is displayed. If you click on this, the public Web site home page will be displayed. If the entered details are invalid, an error message is displayed.

Inspec Direct product home page

Home | Contact Us
Brought to you by:
IET InspecDirect
Quick Search
Advanced Search
Expert Search
Search Aids
My Searches
My Records
My Inspec
Overview
Quick Search
Advanced Search
ExpertSearch
Terms & Conditions
LOGIN
GO
Forgotten password
Register
Home
InspecDirect
Print page
Welcome to Inspec Direct. From here you will be able to search the Inspec database and process your search results in various ways to support your research needs.
Supported by cutting edge technology and this state-of-the-art search engine, the new platform is combined with an intuitive search interface that caters for both novice and expert searchers.
You can analyse results, save results to personal folders, download results in multiple formats, email results to a colleague or set up automated alerts.
To access the personalisation features you must first Register to set up your personal profile. You can do this by clicking on the 'Register' link under the login box. If you are already a member of the IET or have previously registered, simply login using your IET logon credentials.
The search interface comprises three main screens. These are:
Quick search
Allows the user to enter words and phrases into a text box.
Advanced search
Allows the user to perform complex searches using keyword search and browsing in specific fields, using Boolean operators, truncation, refine search, setting limit parameters and sorting results.
Expert search
Command language for expert searchers that allows a high degree of search sophistication and flexibility.
User documentation
User documentation takes the form of comprehensive online help and downloadable PDF documents. The system incorporates help for each page within the interface as well as context sensitive help for individual functions. There are two PDF user guides. These are a high-level User Guide and a more detailed User Manual and be accessed from the following links:

This page can be accessed by clicking on the ‘Home’ button on the Header.

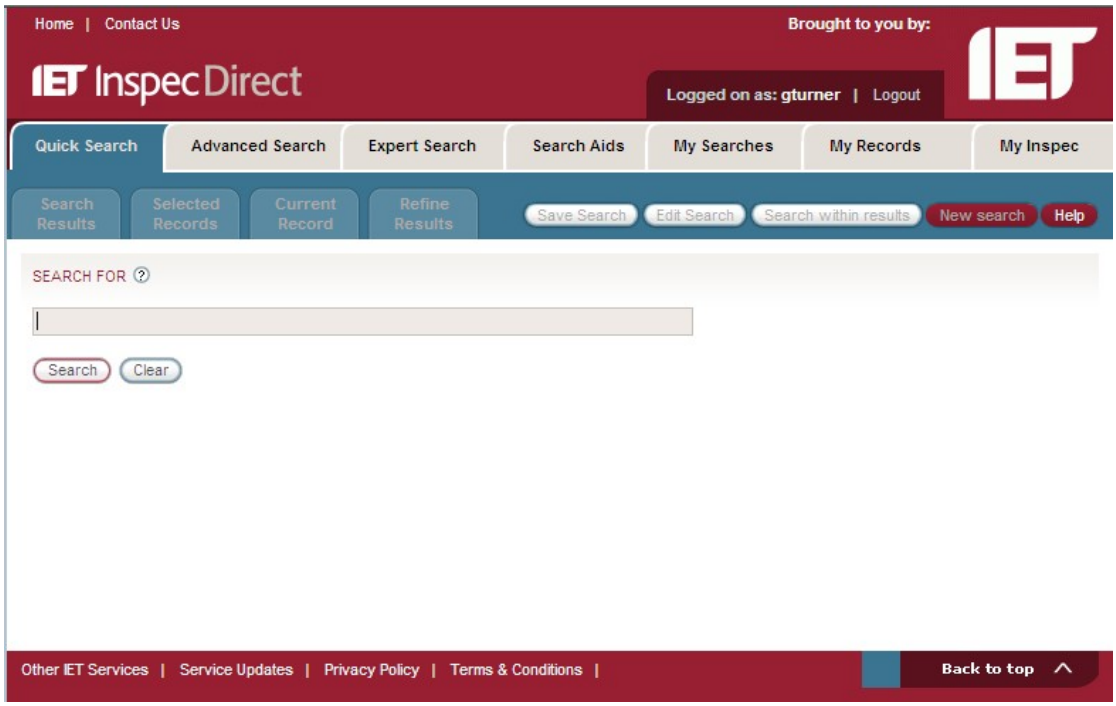
The page allows you to view user documentation, to log on and to access the various Inspec Direct pages.

Field	Function
‘Home’ and ‘Contact us’ buttons	See the Header section.
‘Quick Search’, ‘Advanced Search’, ‘Expert Search’, ‘Search Aids’, ‘My Searches’, ‘My Records’ and ‘My Inspec’ tabs	See the Main Page Navigation Toolbar section.
‘User Name’ text box	Type your User Name into this box in order to log in.
‘Password’ text box	Type your Password into this box in order to log in.
‘Go’ button	Click on this button in order to complete the log-in process.

‘Forgotten password’ button	If you click on this button, a dialogue page is displayed asking you to enter either your User Name or your e-mail address. If the entered details are valid, a password reminder will be sent to your e-mail address, a message is displayed indicating that an e-mail has been sent and a ‘Logon’ button is displayed. If you click on this, the public Web site home page will be displayed. If the entered details are invalid, an error message is displayed.
‘Register’ button	If you click on this, the public Web site home page will be displayed, enabling you to register as a new Inspec Direct user.
User documentation	Click on either the ‘Inspec Direct User Guide’ if you are interested in how to search using Inspec Direct, or the ‘Inspec Direct User Manual’ if you want a complete description of the Inspec Direct system.

Search Pages

Quick Search page

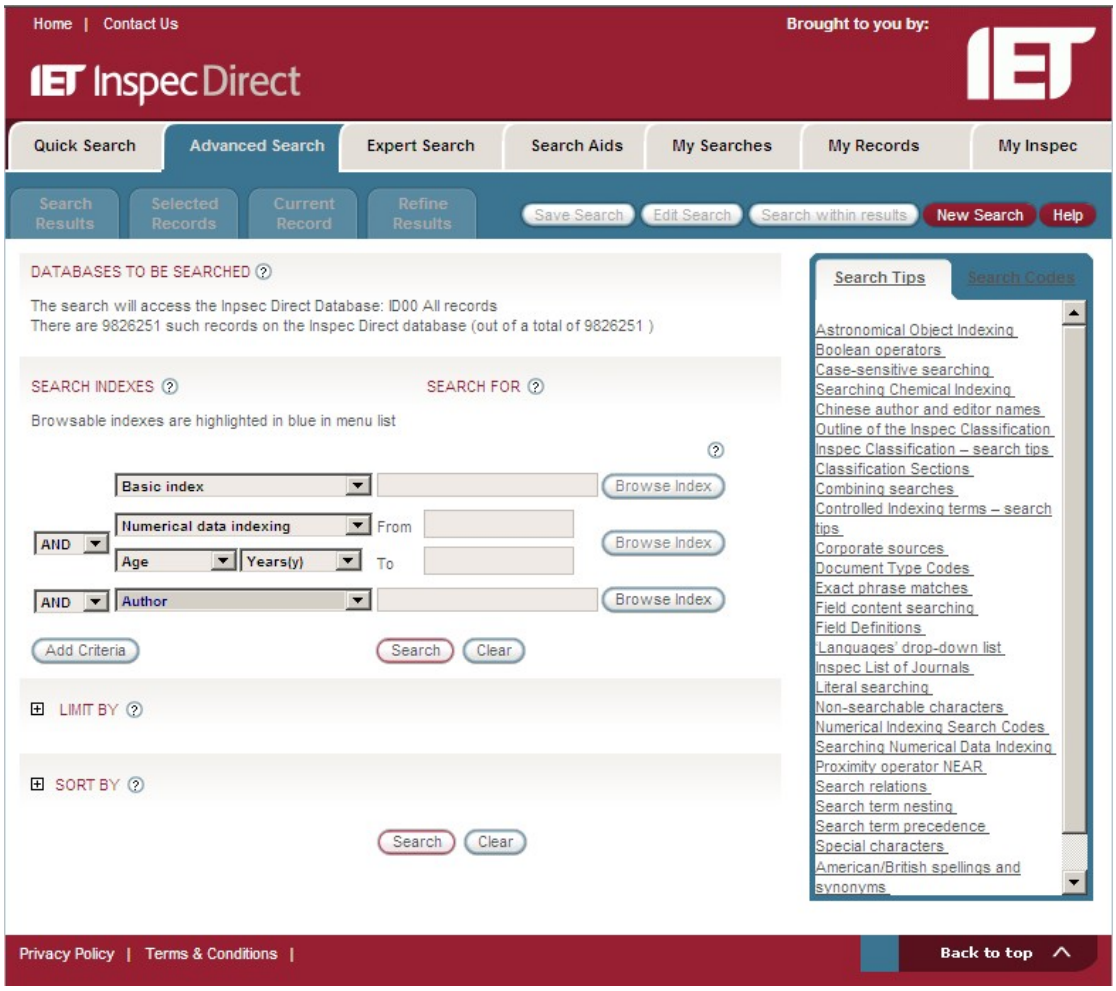


This page allows you to conduct a simple search. By default, all fields indexed in the Inspec database are searched.

The ‘Quick Search’ form will search *all* the fields indexed by the Inspec database. If you wish to search *particular* fields, you should use the Advanced Search or Expert Search pages.

Field	Function
‘SEARCH FOR’ text box	In this box, you can enter any combination of keywords you wish to search for. The ‘Quick Search’ form will search *all* the fields indexed in the Inspec Database. If you wish to search *particular* fields, you should use the Advanced Search or Expert Search pages. All searches are saved in the Search History (see the ‘Search History’ section for an explanation of this); this is viewable on the Search Results page.
‘Search within previous results only’ tick box	This will be displayed when you click on the ‘Search Within Results’ button on the ‘Search Results’ page. By default, the tick box is ticked and the search box above allows you to search within results. The keywords you enter will be combined (Boolean AND) with those you entered previously. To start a new search, un-tick the box.
‘Search’ button	Click on this button (or press the ‘Enter’ key) to submit the keywords you entered in the ‘SEARCH FOR’ text box and view the search results on the Search Results page. If the ‘Search within previous results only’ tick box is ticked, the search will be combined with the results of the previous search.
‘Clear’ button	Click on this button to clear the ‘SEARCH FOR’ text box.

Advanced Search page



This page allows you to select the fields you wish to search and to apply limits to restrict searches.

Field	Function
DATABASES TO BE SEARCHED	Displays details of how many records there are in the Inspec Database and how many of these you are able to access (depending on which section(s) of the Database you have subscribed to).

Field	Function
‘SEARCH INDEXES’ fields	Use these boxes to select which fields you wish to search. You can specify the field by selecting one of them from the drop-down menu next to the text box. Those fields with browsable indexes are highlighted in blue. By default, each box is set to ‘Basic Index’. The Basic Index consists of the following fields: • Title • Abstract • Controlled Terms • Uncontrolled Terms Note: If you select the “Numerical data indexing” field, additional boxes are made available: • Quantity drop-down box – select the numerical quantity that you wish to search for (e.g. “Frequency”, “Distance”) • Unit drop-down box – select the unit in which you wish to specify the quantity (e.g. feet, metres) • From text box – enter the lowest (smallest) value you wish to search for, e.g. 0.3 (or, if you want to search for a spot value, enter it here) • To text box – enter the highest (largest) value you wish to search for, e.g. 600 (See the Numerical Indexing Thesaurus for details of which quantities and values are available.)
‘SEARCH FOR’ text boxes	In these boxes, you can enter any combination of keywords you wish to search for. They can be linked by Boolean operators, e.g. in the ‘Language’ text box, you can enter “French OR German”.

Field	Function
‘Browse index’ button	If the search field is one for which index browsing is available (see list below), then the ‘Browse Index’ button is activated (otherwise it will be greyed out). Click on this button to display the pop-up window for browsing through the terms that are available for searching in this particular field. To navigate, select the first letter of the term you wish to search for or type in the first few letters of the term in the ‘Browse For’ box and click on ‘Browse’. Select the terms from the index and choose the Boolean operator (AND or OR) required to connect them. Clicking on the ‘Go to Search’ button will exit the window and put the data you have selected into the corresponding search text box. The following search fields are browsable (and are highlighted in blue text on a grey background in the ‘SEARCH INDEXES’ drop-down list): • Author • Country of Publication • Astronomical Object Indexing • Conference Location • Conference Sponsor • Document Type • Journal Title • Language • Publisher • Uncontrolled Indexing
Logic drop-down list	This list is displayed to the left of the list of ‘SEARCH INDEXES’ fields. By default, each box is set to ‘AND’. This means that those search terms entered in the row above this box will be combined with the search terms entered to the right of the box by using the Boolean ‘AND’ operator. If you click on the drop-down arrow next to the field, you can change this operator to ‘OR’ or ‘NOT’ as required, by clicking on one of the entries to select it.
‘Add criteria’ button	Click on this button to add more search fields to your search.
‘Search’ button	Click on this button (or press the ‘Enter’ key) to submit the keywords you entered in the ‘SEARCH FOR’ text box and view the search results on the Search Results page. If the ‘Search within previous results only’ tick box is ticked, the search will be combined with the results of the previous search.
‘Clear’ button	Click on this button to clear the ‘SEARCH FOR’ text box and reset the ‘Limit By’ and ‘Sort By’ parameters to their default preferences.

Field	Function
‘LIMIT BY’ options	These options enable you to limit your search by ‘Document type’, ‘Treatment type’, ‘Subject area’ or ‘Language’. Click on ‘+’ to expand the view to display the full ‘Limit By’ options in order to alter their settings. Click on ‘-’ to hide the settings. Note: You can only select ONE document type, treatment type, etc. from each ‘LIMIT BY’ drop-down list. If you wish to select more than one option, you will need to do this by selecting the appropriate field from the ‘SEARCH INDEXES’ drop-down boxes and entering the required options into the corresponding ‘SEARCH FOR’ text box. For example, select ‘Document type’ in a ‘SEARCH INDEXES’ drop-down box and type ‘book OR journal’ in the ‘SEARCH FOR’ text box.
‘Document types’ drop-down list	‘Document type’ refers to the type of document in which the abstracted item was published (e.g. Journal article, Book chapter, Conference paper). By default, each box is set to “All document types”. To restrict the search to a particular document type, choose one from the drop-down menu. If you have arrived at the screen after clicking on a ‘Search Within Results’ button, the document type will default to the value for the previous search. See ‘Document Type Codes’ in the ‘Search Tips’ section for a list of the document types.
‘Treatment types’ drop-down list	‘Treatment type’ indicates the approach taken by authors in writing an article (e.g. “Experimental”, “Theoretical”, “Review”). By default, each box is set to “All treatment types”. To restrict the search to a particular treatment type, choose one from the drop-down menu. If you have arrived at the screen after clicking on a ‘Search Within Results’ button, the Treatment type will default to the value for the previous search. See ‘Treatment Codes’ in the ‘Search Tips’ section for a list of the treatment types.
‘Subject areas’ drop-down list	‘Subject areas’ refers to the section of the Inspec Database within which the document has been indexed (e.g. Physics, Electrical Engineering, Computing). By default, each box is set to “All subject areas”. To restrict the search to a particular subject area, choose one from the drop-down menu. If you have arrived at the screen after clicking on a ‘Search Within Results’ button, the Subject area will default to the value for the previous search. See ‘Classification Sections’ in the ‘Search Tips’ section for a list of the subject areas covered in the Inspec Database.
‘Languages’ drop-down list	‘Language’ refers to the language in which the original document was written (e.g. French, Japanese). By default, each box is set to “All languages”. To restrict the search to a particular language, choose one from the drop-down menu. If you have arrived at the screen after clicking on a ‘Search Within Results’ button, the Language will default to the value for the previous search. See ‘Languages’ in the ‘Search Tips’ section for a list of languages.

Field	Function
‘Date Range’ options	‘Date Range’ allows you to limit the search by a defined time-span. Click on one of the radio buttons to choose from the following options: • limit by a range of publication years • limit to publications from within the last 10 years • limit to records added within the past few weeks • limit to records added since you last ran a search
‘Between’ year drop-down list	Use this list to select the earliest publication year for the records you require to be searched. Specify the year by choosing a value from the drop-down menu.
‘And’ year drop-down list	Use this list to select the latest publication year for the records you require to be searched. Specify the year by choosing a value from the drop-down menu. If the ‘And’ year is earlier than the ‘Between’ year, an error message will be displayed.
‘Published in the last’ drop-down list	Select this option to limit the search to content published within the last 10 years. Specify the period you want to restrict the search to by choosing between “1 year” and “10 years” from the drop-down menu.
‘Added to Database in last’ drop-down list	Select this option to limit the search to the most recent week of data that was added to the database. Specify the periods you want to restrict your search to by choosing from the drop-down menu. The available periods are: • within the last week • within the last 2 weeks • within the last 3 weeks • within the last 4 weeks • since you last logged on to the system
‘Since search last run’ tick box	This option is only available if a search has been performed before; note, the date when the last search was run will be displayed. Select this if you wish to limit the search to the data that has been added to the database since that date.
‘Autostemming’ radio buttons	‘Autostemming’ means that all the search terms will be treated as if they have the truncation symbol '*' appended. For example, if this option is turned on, then for the keyword “COMPUTER”, all of the following would be retrieved: • Computers • Computing • Computerise • Computerized • etc.
‘Only list full text articles’ radio buttons	‘Full text articles’ refers to those records where links to the full-text version of the item are available. If this option is turned on, then the search will be limited to such records only.
‘SORT BY’ criteria	This list enables you to sort your search results using various criteria. Click on ‘+’ to expand to view the full ‘Sort by’ options so that the settings can be changed. Click on ‘-’ to hide the settings.

Field	Function
'Primary' and 'Secondary' sort sequences	The records displayed in the list of search results will be sorted first by the field specified in the 'Primary' box and then by the field specified in the 'Secondary' box. If you click on the drop-down arrows next to the fields in these two boxes, the available fields to sort on will be displayed. You can then click on these entries to select them.
'Ascending/Descending' radio buttons	The records displayed in the list of search results will be displayed either in ascending order (e.g. alphabetically or in numerically-increasing order) or in descending order (e.g. in reverse alphabetical order or in numerically-decreasing order), depending which button is selected.
'Search within previous results only' tick box	This box will only be displayed if you have clicked on the 'Search Within Results' button in the 'Search Results' page. By default, the tick box is ticked, and the search form above it allows you to search within your previous results. The keywords you enter will be combined (Boolean AND) with those that you entered previously. To start a new search, un-tick the box.
Search Tips tab	Displays a list of useful tips to help you in your searching. See the 'Search Tips' list below.

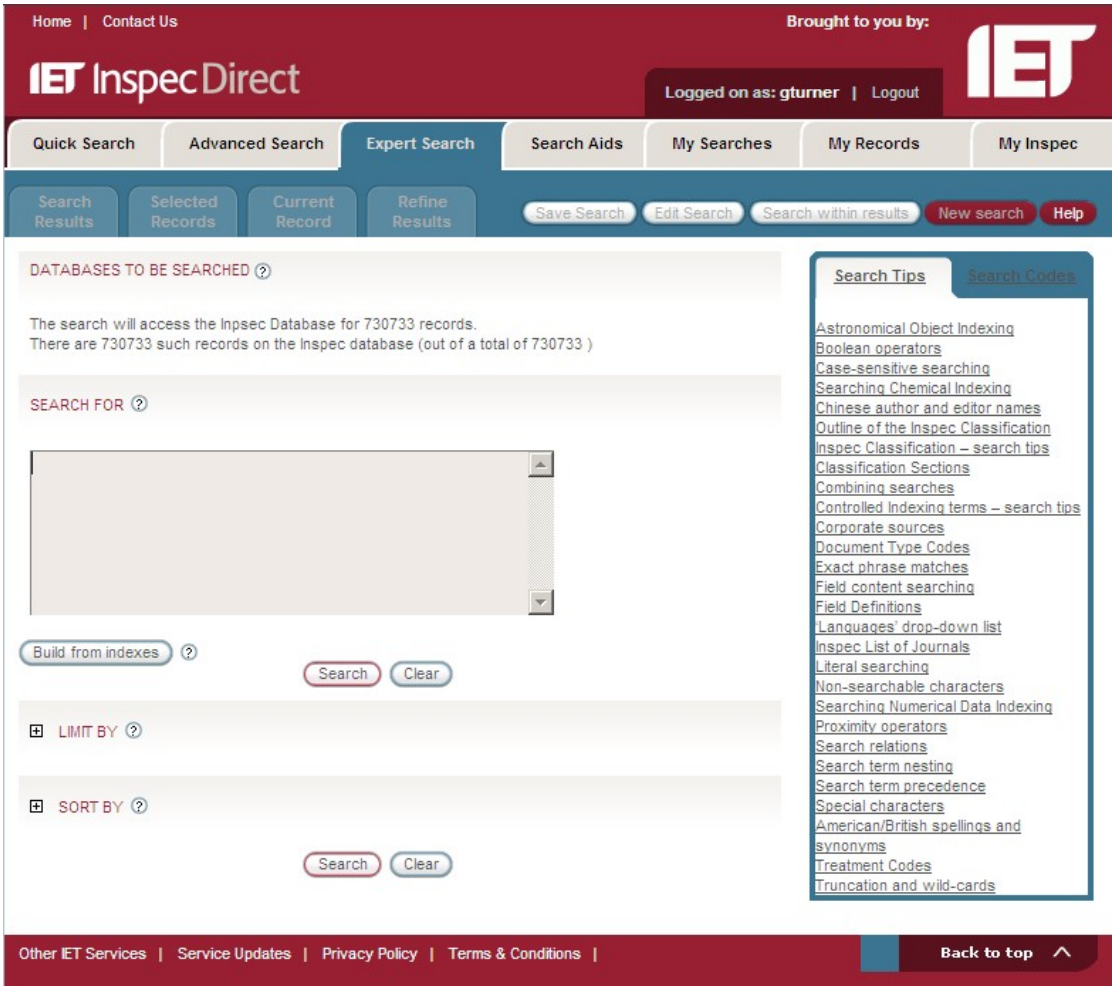
'Search Tips' list

The 'Search Tips' list on the Advanced and Expert Search pages contains the following set of hyperlinks:

- American vs. British spellings
- Astronomical objects
- Author affiliations
- Boolean searching
- Chemical substances
- Chinese names
- Classification scheme
- Classification searching
- Combining searches
- Controlled Indexing
- Corporate sources
- Document types
- Field content searching
- Fields that can be searched
- Journals
- Languages
- Literal searching
- Non-searchable characters
- Numerical data
- Phrase searching
- Proximity searching
- Search relations
- Search term nesting
- Search term precedence
- Sections of the Inspec Database
- Special characters

- Subject areas
- Synonym matching
- Thesaurus
- Treatment types
- Truncation
- Wild-cards

Expert Search page



This page can be accessed from the Main Page Navigation Toolbar by clicking on the “Expert Search” tab.

The page allows you to specify and request an expert search query on the Inspec database. This is a more advanced search query than is possible with the Advanced Search page because it enables you to build a search by browsing through the indexes of each field.

This page works in a similar way to the Advanced Search page, except for the following additional functions:

Field	Function
‘SEARCH FOR’ text box	This box replaces the ‘SEARCH INDEXES’ fields, the ‘SEARCH FOR’ text boxes and the Logic drop-down list on the Advanced Search page. In this box, you can enter any combination of terms you wish to search for. Use the Search Field two-letter codes to specify each field and Boolean operators (AND, OR, NOT) to link the terms. For example, to search for records in French with the Classification Code “c6160K”, type “(FRENCH <in> LA) AND (C6160K <in> CC)” into this box. Note: Within this box, pressing the ‘Enter’ key will create a new line of text. If your cursor is not within the text box, pressing the ‘Enter’ key will initiate the search (as if the ‘Search’ button had been pressed). For additional information on Inspec Direct’s query language, see the Search Tips on “Field content searching”, “Boolean operators”, “Exact phrase matches”, “Literal searching”, “Proximity operator NEAR”, “Search relations”, “Search term nesting” and “Search term precedence”.
‘Build from indexes’ button	This button replaces the ‘Browse index’ buttons on the Advanced Search page. See the Index Browsing section to find out how this works.
‘Search Codes’ tab	Displays a list of two-letter codes for each of the searchable fields. You can toggle between this display and the Search Tips. See the ‘List of Fields’ section for a list of the two-letter codes.

‘Search Codes’ list

The ‘Search Codes’ list on the Expert Search page contains the following list:

Field	Code
Abstract	AB
Accession number	AN
Affiliation	AF
Affiliation country	AC
Article title	TI
Astronomical object indexing	AO
Author	AU
Basic index	BI
Book title	BT
Chemical indexing	CI
Classification	CC
CODEN	CO
Conference country	MC
Conference dates	MD

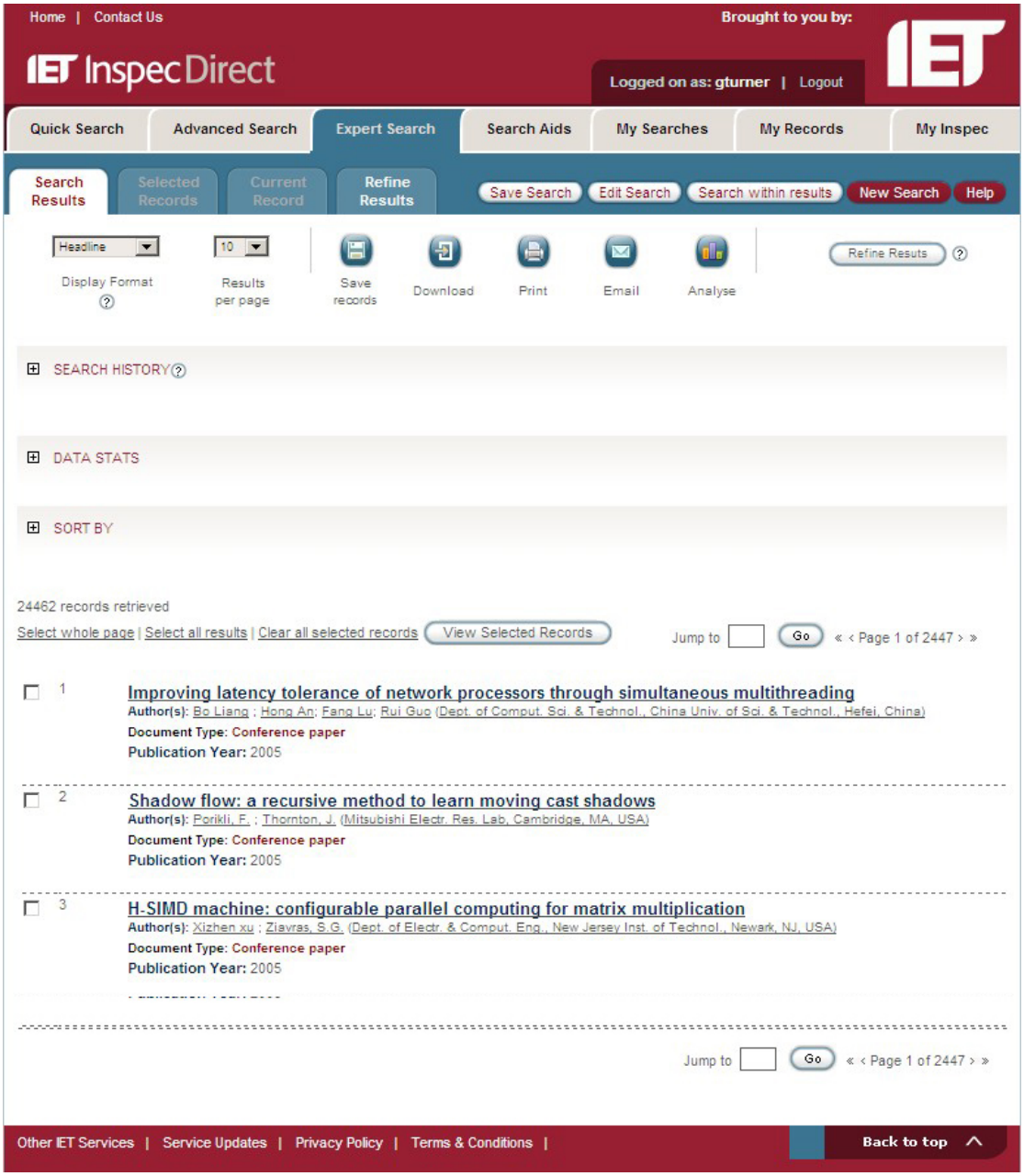
Conference location	ML
Conference sponsor	SP
Conference title	MT
Conference year	MY
Contract number	RN
Controlled indexing	CT
Corporate source	CS
Country of original patent application	PC
Country of patent	PC
Country of publication	CP
Date filed or submitted	SD
Document collection URL	UR
Document type	DN
Document type code	DT
DOI	DO
Editor	ED
IPC Codes	IP
ISBN	BN
ISSN	IS
Issue number	IN
Issuing organisation	IO
Journal title	JT
Language	LA
Material Identification Number	MN
Original patent application number	PN
Page numbers	PG
Patent assignee	AS
Patent data	PA
Patent number	PN
Primary classification	FC
Publication date	PD
Publication title	HT
Publication year	PY
Publisher	PU
Report number	RN
Report title	RT
SICI	SI
Subfile	SF

Treatment codes	TC
U.S. Government Clearing House number	RN
Uncontrolled indexing	UT
Update	UD
URL	UR
Volume	VO

See the Inspec Numerical Indexing Thesaurus section for a list of the 4-character Numerical Indexing codes.

Record Display pages

Search Results page


Home | Contact Us
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Quick Search
Advanced Search
Expert Search
Search Aids
My Searches
My Records
My Inspec
Search Results
Selected Records
Current Record
Refine Results
Save Search
Edit Search
Search within results
New Search
Help
Headline
10
Display Format
Results per page
Save records
Download
Print
Email
Analyse
Refine Results
SEARCH HISTORY
DATA STATS
SORT BY
24462 records retrieved
Select whole page | Select all results | Clear all selected records
View Selected Records
Jump to
Go
« ‹ Page 1 of 2447 › »
1
Improving latency tolerance of network processors through simultaneous multithreading
Author(s): Bo Liang ; Hong An; Fang Lu; Rui Guo (Dept. of Comput. Sci. & Technol., China Univ. of Sci. & Technol., Hefei, China)
Document Type: Conference paper
Publication Year: 2005
2
Shadow flow: a recursive method to learn moving cast shadows
Author(s): Porikli, F. ; Thornton, J. (Mitsubishi Electr. Res. Lab, Cambridge, MA, USA)
Document Type: Conference paper
Publication Year: 2005
3
H-SIMD machine: configurable parallel computing for matrix multiplication
Author(s): Xizhen xu ; Ziavras, S.G. (Dept. of Electr. & Comput. Eng., New Jersey Inst. of Technol., Newark, NJ, USA)
Document Type: Conference paper
Publication Year: 2005
Jump to
Go
« ‹ Page 1 of 2447 › »
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Back to top

This page is displayed when you submit a search on the Quick Search, Advanced Search or Expert Search pages.

The page allows you to view your search results. It displays lists of the retrieved articles' titles, authors, full-text links and percentage relevance.

Field	Function
‘Save Search’ button	Click on this button to save the search you have entered so that you can re-submit it at a later time or date. See the Save Search section for more details.
‘Edit Search’, ‘Search Within Results’ and ‘New Search’ buttons	See the Search Options Toolbar section.
‘Display & Data Options’ icons, ‘Refine Results’ button and Record Navigation buttons	See the Record Navigation Toolbar section.
‘Search History’ options	See the Record Display section.
‘Sort By’ options	See the Record Navigation Toolbar section.
‘Select all on page’	If you click on this option (or tick the tick-box to its left), all records on the page will be selected. To clear (un-select) these records, un-tick the tick-box.
‘Select all results’	If you click on this option, all search result records will be selected (including those not displayed on the page).
‘Clear ALL selected results’	If you click on this option, you will be asked to confirm that you want to clear all selected results. If you click ‘Yes’, all selected records will be unselected.
‘View selected records’ button	If you click on this option, the Selected Records page will be displayed.
‘Select Record’ tick boxes (one displayed against each record on the page)	Tick these boxes to select records that you want displayed in more detail (by clicking on the ‘View selected records’ button).
Search-result records	Each record is displayed in the format chosen from the ‘Display Format’ drop-down list at the top of the page. See the Field Definitions section for a list of the fields displayed. If any of your search terms occur anywhere within these details (including within fields that you did not search), then they will be highlighted. Clicking on the Title of any record will take you to the Current Record page.

Selected Records page

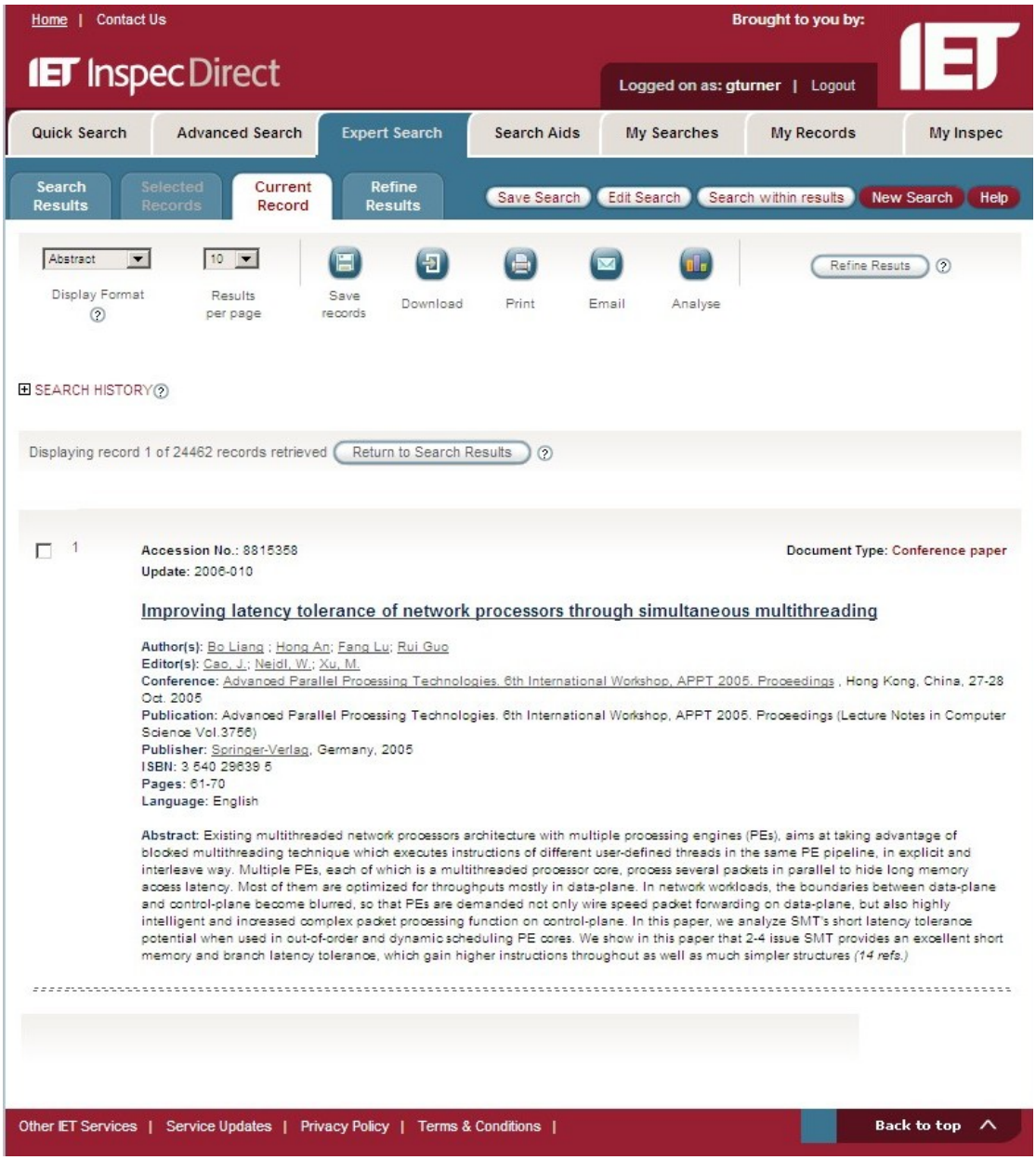
This page is accessed from the Search Results page by selecting records to view (by ticking the check-boxes to the left of the record titles on that page) and then clicking on the “View Selected Records” icon.

The page allows you to view selected records from your previous searches. It is similar to the Search Results page, except that it only shows details about the particular records that you selected on the Search Results page.

Note: If you close your session, any selected records will be discarded and will not be available when you return.

Field	Function
‘Save Search’ button	Click on this button to save the search you have entered so that you can re-submit it at a later time or date. See the Save Search section for more details.
‘Edit Search’, ‘Search Within Results’ and ‘New Search’ buttons	See the Search Options Toolbar section.
‘Display & Data Options’ icons, ‘Refine Results’ button and Record Navigation buttons	See the Record Navigation Toolbar section.
‘Search History’	See the Record Display section.
‘Sort By’ options	See the Record Navigation Toolbar section.
‘De-select all on page’	If you click on this option, you will be asked to confirm that you want to clear all the selected results shown on the page. If you click ‘Yes’, all check-boxes on the page will be un-ticked.
‘De-select all records’	If you click on this option, you will be asked to confirm that you want to clear all selected results. If you click ‘Yes’, all of the check-boxes for all records will be un-ticked.
‘Refresh List’ button	If you click on this button, the page will be re-displayed with all the de-selected (un-ticked) records removed.
‘Return to Search Results’ button	If you click on this button, you will return to the Search Results page.
Record tick boxes (one displayed against each record on the page)	Un-tick these boxes to select records that you want to remove (by clicking on the ‘De-select all on page’ or ‘De-select all records’ options).
Selected records	Each record is displayed in the format chosen from the ‘Display Format’ drop-down list at the top of the page. See the Field Definitions section for a list of the fields displayed. If any of your search terms occur anywhere within these details (including within fields that you did not search), then they will be highlighted. Clicking on the Title of any record will take you to the Current Record page.

Current Record page


Home | Contact Us
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Quick Search
Advanced Search
Expert Search
Search Aids
My Searches
My Records
My Inspec
Search Results
Selected Records
Current Record
Refine Results
Save Search
Edit Search
Search within results
New Search
Help
Abstract
Display Format
10
Results per page
Save records
Download
Print
Email
Analyse
Refine Results
SEARCH HISTORY
Displaying record 1 of 24462 records retrieved
Return to Search Results
1
Accession No.: 8815358
Update: 2006-010
Document Type: Conference paper
Improving latency tolerance of network processors through simultaneous multithreading
Author(s): Bo Liang ; Hong An; Fang Lu; Rui Guo
Editor(s): Cao, J.; Nejdl, W.; Xu, M.
Conference: Advanced Parallel Processing Technologies. 6th International Workshop, APPT 2005. Proceedings , Hong Kong, China, 27-28 Oct. 2005
Publication: Advanced Parallel Processing Technologies. 6th International Workshop, APPT 2005. Proceedings (Lecture Notes in Computer Science Vol.3756)
Publisher: Springer-Verlag, Germany, 2005
ISBN: 3 540 29639 5
Pages: 61-70
Language: English
Abstract: Existing multithreaded network processors architecture with multiple processing engines (PEs), aims at taking advantage of blocked multithreading technique which executes instructions of different user-defined threads in the same PE pipeline, in explicit and interleave way. Multiple PEs, each of which is a multithreaded processor core, process several packets in parallel to hide long memory access latency. Most of them are optimized for throughputs mostly in data-plane. In network workloads, the boundaries between data-plane and control-plane become blurred, so that PEs are demanded not only wire speed packet forwarding on data-plane, but also highly intelligent and increased complex packet processing function on control-plane. In this paper, we analyze SMT's short latency tolerance potential when used in out-of-order and dynamic scheduling PE cores. We show in this paper that 2-4 issue SMT provides an excellent short memory and branch latency tolerance, which gain higher instructions throughout as well as much simpler structures (14 refs.)
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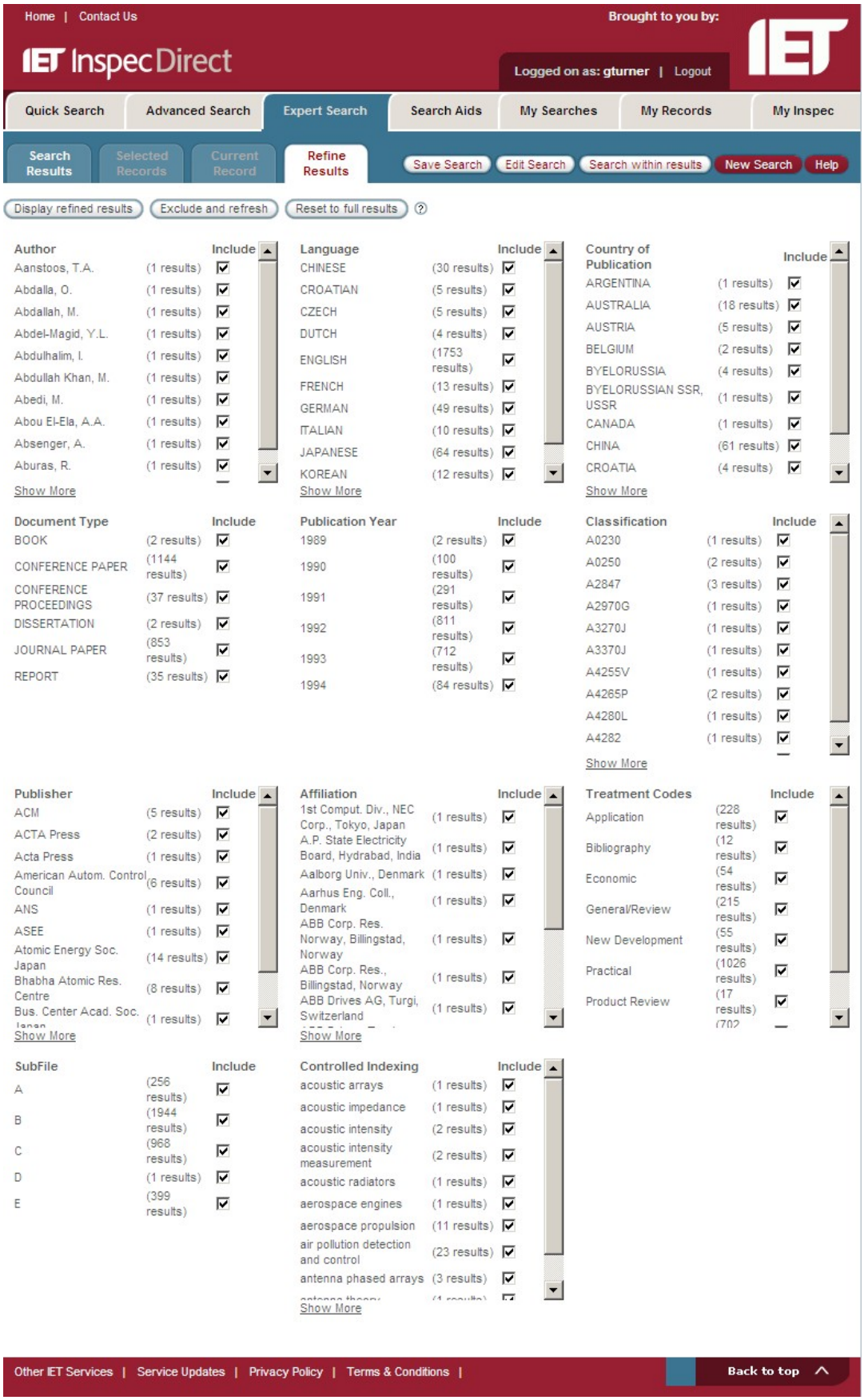
Back to top

This page is accessed by clicking on the Title of one of the search-result records on either the Search Results page or the Selected Records page.

The page allows you to view the details for a single record. Which details can be viewed depends on the display format chosen. The default is the Abstract format.

Field	Function
‘Save Search’ button	Click on this button to save the search you have entered so that you can re-submit it at a later time or date. See the Save Search section for more details.
‘Edit Search’, ‘Search Within Results’ and ‘New Search’ buttons	See the Search Options Toolbar section.
‘Display & Data Options’ icons, ‘Refine Results’ button and Record Navigation buttons	See the Record Navigation Toolbar section.
‘Search History’ options	See the Record Display section.
‘Return to Search Results’ button	If you click on this button, you will return to the Search Results page.
Record tick box	Tick this box to select the record for later processing.
Record contents	Each record is displayed in the format chosen from the ‘Display Format’ drop-down list at the top of the page. See the Field Definitions section for a list of the fields displayed. If any of your search terms occur anywhere within these details (including within fields that you did not search), then they will be highlighted.

Refine Results page



This page is accessed from the Sub-Page Navigation Toolbar, which is displayed when you submit a search on the Quick Search, Advanced Search or Expert Search pages.

The page allows you to refine your search results, following a previous search on the database.

Field	Function
'Save Search' button	Click on this button to save the search you have entered so that you can re-submit it at a later time or date. See the Save Search section for more details.
'Edit Search', 'Search Within Results' and 'New Search' buttons	See the Search Options Toolbar section.
'Display Refined Results' button	Click on this button to run a refined search based on the terms you have chosen to include or exclude from the answer set, using the tick boxes on this page. The results of your refined search will be displayed on the Search Results page. The new refined search query is stored in the Search History. To restore the original search, re-run the previously run query from the Search History.
'Apply and Refresh' button	This is the same as the 'Display Refined Results' button except that, instead of displaying the Search Results page, the Refine Results page is refreshed and re-displayed with the updated details, having excluded those terms which you have un-ticked.
'Cancel' button	Click on this button to recall the previous search results. The most recent results list is restored in the Search Results page, where you can refine the search again.

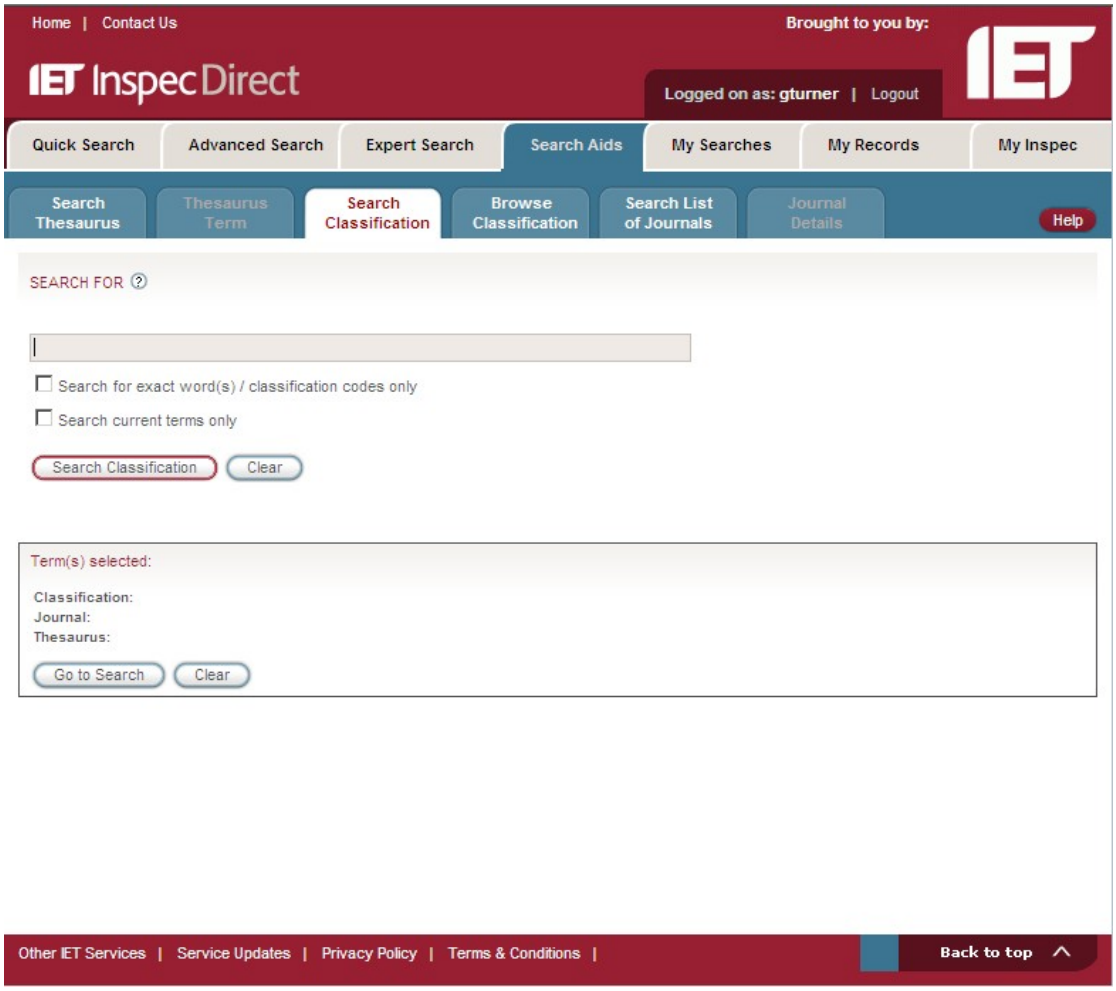
See the List of Fields section for details of the fields which are listed on this page.

For each of the fields, the details below are displayed:

- The terms retrieved and the number of records in the search results for each term (ordered in descending order of the number of records retrieved).
- An 'Inc' tick box for each term. If you tick any tick boxe, you are indicating that records with this term are to be *included* from your refined search.
- An 'Exc' tick box for each term. If you tick any tick box, you are indicating that records with this term are to be *excluded* from your refined search. Note: If you tick too many boxes, you may end up with very few (or even no) records, since you will be excluding *all* references to these concepts.
- If there are more terms than will fit on the page, a 'Show More' hyperlink is displayed. If the hyperlink is clicked, the full list (up to the maximum allowed) is displayed.

Search Aid pages

Search Classification page



This page is accessed from the Sub-Page Navigation Toolbar, which is displayed when you click on the Search Aids tab on the Main Page Navigation Toolbar.

The page allows you to search the Inspec Classification.

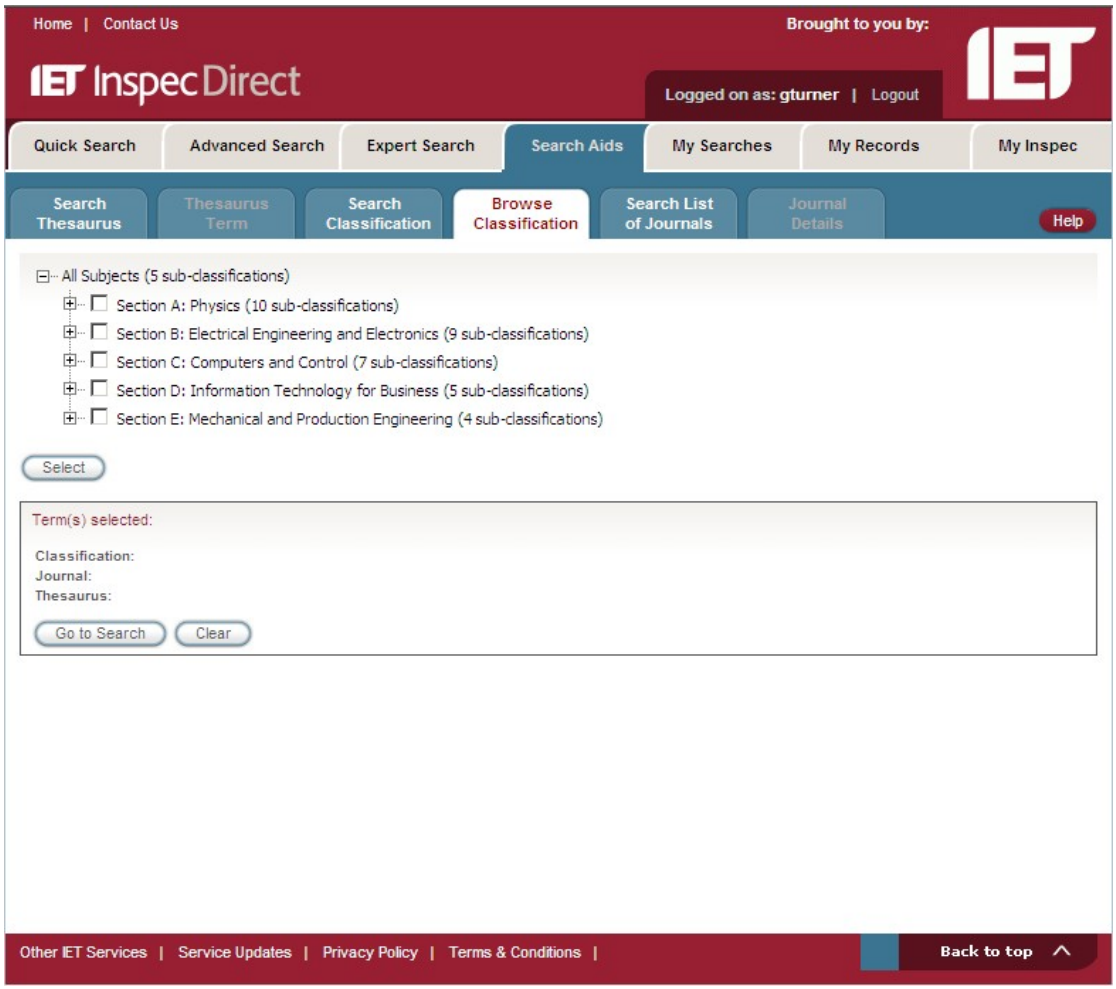
Field	Function
'SEARCH CLASSIFICATION FOR' text box	In this box, you can enter any combination of keywords (including Classification Codes and Classification Text words) that you wish to search for. You will need to use Boolean logic (AND, OR, NOT) when you enter multiple terms and to use double-quotes (" ") for exact phrase matches.
'Contains these exact word(s) or code(s) only' tick box	Tick this box if you want the search to return classifications whose code or text exactly matches the text you have typed in to the 'SEARCH CLASSIFICATION FOR' text box. Leave the box un-ticked if you want the search to return classifications whose code or text contains any of the search text.
'Current classifications only' tick box	Tick this box if you want the search to only return classifications that are in the currently Inspec Classification scheme. Leave the box un-ticked if you want the search to include all classifications (i.e. including those that are no longer current).
'Search Classification' button	Click on this button (or press the 'Enter' key) to search for Inspec classifications using the criteria entered above and display the results below.
'Clear' button	This button can be found just under the search boxes as well as towards the end of the page. Click on this button to clear all of the 'SEARCH CLASSIFICATION FOR' text boxes.

Once you have performed a search, the following Search Results will be displayed:

- The number of Classifications returned for the search criteria
- A list of the classification codes and text retrieved (up to the maximum number permitted). If you click on one of these, the corresponding Classification record will be displayed on the Browse Classification page

'Terms selected' box	See the Search Aid Summary section.

Browse Classification page



This page is accessed from the Sub-Page Navigation Toolbar, which is displayed when you click on the Search Aids tab on the Main Page Navigation Toolbar.

The page enables you to browse through the Inspec Classification scheme.

If you enter the page by clicking on the sub-page tab, no classification will have been selected and only the top level classification details will be displayed i.e. ‘All subject areas (5 sub-classifications)’ and details of the 5 subject areas (viz. Sections A, B, C, D and E of the Inspec Database). To proceed further, you will need to click on one of the displayed classification codes in order to select it.

If you enter the page from either the Search Classification page or the Thesaurus Term page, you will have selected a classification code to be displayed. The classification codes will be displayed in a hierarchical manner, showing:

- Top level ‘All subject areas (5 sub-classifications)’
- All levels in between the top level and the selected classification and the number of immediate sub-classifications, e.g. if the selected classification is B63, the intermediate levels will be B and B6
- Classification code, text and number of immediate sub-classifications
- Details of the selected classification (only available for the lowest level classifications), e.g. from year, to year, comments

- If the selected classification has any sub-classifications, each of the sub-classifications will be listed below, together with their number of immediate sub-classifications (if any)
- If the selected classification has no sub-classifications, the details of the classification will be displayed

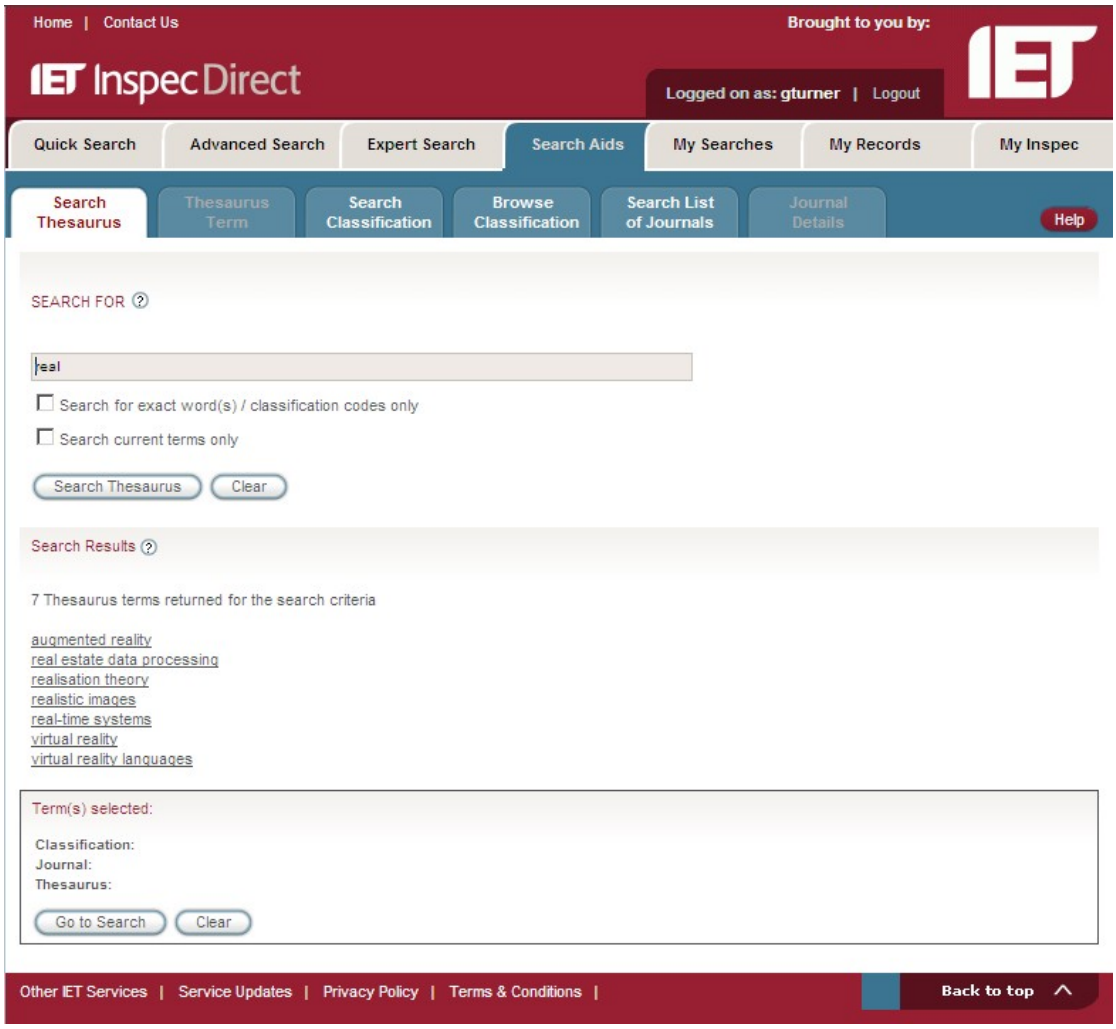
The classification details are displayed in a pop-up window. The details displayed (when available) are in the following sequence:

- Code and text explaining the meaning of the code
- History scope (the dates when this code was in use and the codes that were used previously)
- Future scope (the codes that replaced this code)
- Scope note (the subject matter included in this code)
- 'See also...'
- 'For... see...'

For each classification, the following functions are available:

Field	**Function**
Classification tick box (for all classification rows except the top 'All Subject Areas' row)	If you tick this box, the classification and all its sub-classifications will be selected (ticked). If you un-tick this box, the classification and all its sub-classifications will automatically be un-selected (un-ticked).
Classification code, text and number of immediate sub-classifications	Each classification is hyperlinked, so that if you click on one of the higher or lower level classifications, it will become the selected classification and its details will be displayed.
Classification details	Details such as 'from' year, 'to' year, scope notes and cross-references (only available for the lowest-level classifications) are displayed. Cross-referenced codes are hyperlinked, so that clicking on the link will make that particular classification code the selected classification code.
'Terms selected' box	See the Search Aid Summary section.
'Go to Search' button	Click on this button to go to the Search Classification page with the selected classifications pre-populated into the 'SEARCH FOR' text box.
'Clear' button	If you click on this button, all the tick boxes will be automatically un-ticked and all the terms displayed in the 'Terms selected' box the will be automatically removed.

Search Thesaurus page



This page is accessed from the Sub-Page Navigation Toolbar, which is displayed when you click on the Search Aids tab on the Main Page Navigation Toolbar. It is the first page displayed when you click on the Search Aids tab.

The page allows you to search for Inspec Thesaurus terms.

Field	Function
'SEARCH THESAURUS FOR' text box	In this box, you can enter any combination of keywords (words from the Inspec Thesaurus) that you wish to search for. You will need to use Boolean logic (AND, OR, NOT) when you enter multiple terms.
'Contains these exact word(s) only' tick box	Tick this box if you want the search to return thesaurus terms whose Thesaurus Term, Used For Terms or Classification Codes exactly match the words you have typed in to the 'SEARCH THESAURUS FOR' text box. Leave the box un-ticked if you want the search to return thesaurus terms whose Thesaurus Term, Used For Terms or Classification Codes contain any of the search text.
'Current terms only' tick box	Tick this box if you want the search to only return thesaurus terms that are in the currently Inspec Thesaurus. Leave the box un-ticked if you want the search to include all thesaurus terms (i.e. including those that are no longer current).
'Search Thesaurus' button	Click on this button (or press the 'Enter' key) to search for Inspec thesaurus terms using the criteria entered above and display the results below.
'Clear' button	This button can be found just under the search boxes as well as towards the end of the page. Click on this button to clear all of the 'SEARCH THESAURUS FOR' text boxes.

Once you have performed a search, the following Search Results will be displayed:

- The number of Thesaurus Terms returned for the search criteria
- A list of the thesaurus terms retrieved (up to the maximum number permitted). If you click on one of these, the corresponding Thesaurus Term and all its details will be displayed on the Thesaurus Term page

'Terms selected' box	See the Search Aid Summary section.

Thesaurus Term page

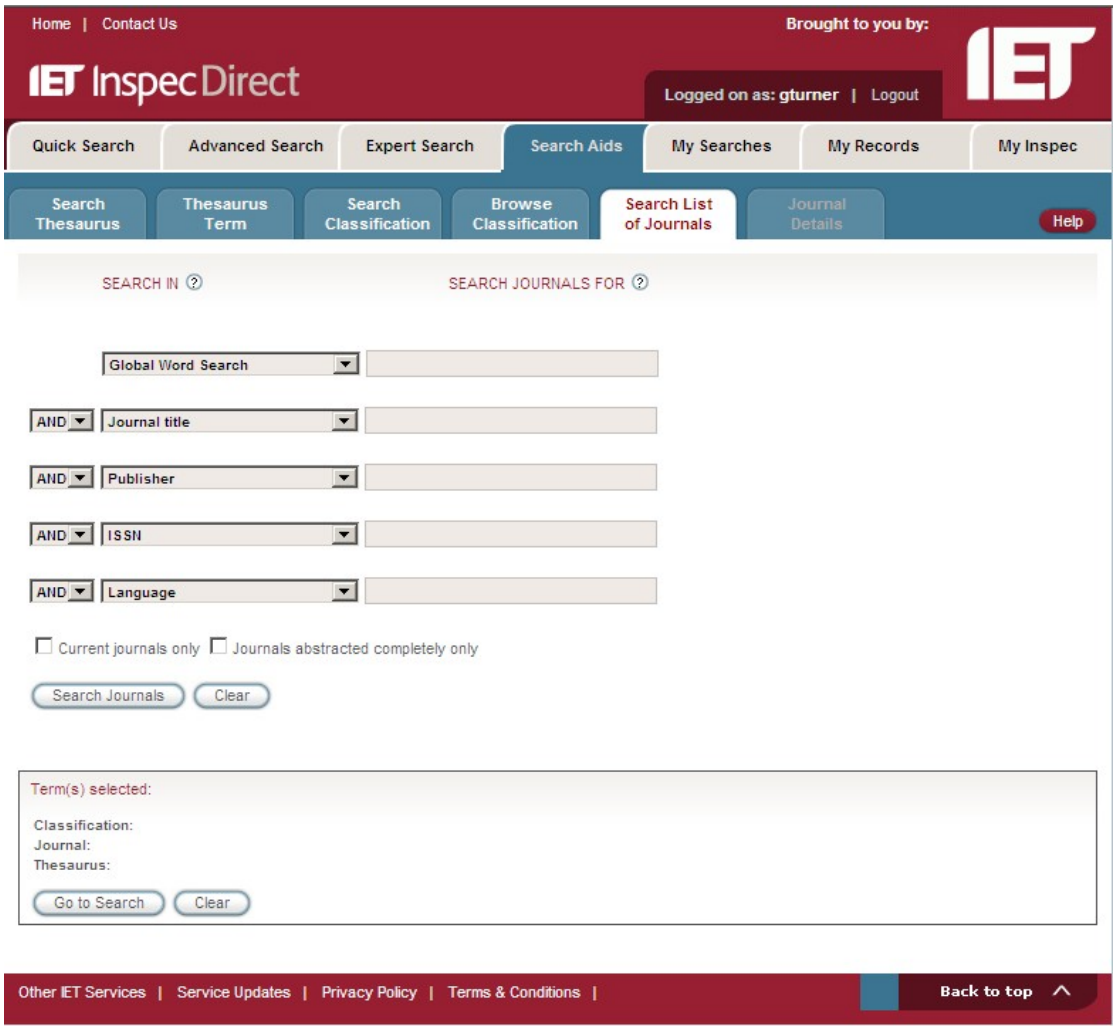
This page is accessed by clicking on one of the thesaurus terms that is displayed in the list of search results on the Search Thesaurus page.

The page allows you to view details for a particular thesaurus term.

The details of the term (listed below) are displayed in collapsible sections, with the Top Term(s) and Broader Terms(s) above the main Thesaurus Term that is being viewed, the Related Term(s) and Classification(s) next, and the Narrower Term(s) below.

Field	Function
‘Top terms(s)’	Displays those terms that are at the top of the hierarchy of which the main term forms a part. If you click on any term, the selected term will be displayed as the main term on the page.
‘Broader terms(s)’	Displays those terms that are immediately above the main term in the hierarchy of which the main term forms a part. If you click on any term, the selected term will be displayed as the main term on the page.
‘Thesaurus Term’	Displays any text associated with the main term, including: • Scope notes • ‘Not current’ (only displayed if the term has been deleted from current version of the Inspec Thesaurus) • ‘Used for’ terms (if you click on any term, the selected term will be displayed as the main term on the page) • Prior terms (if you click on any term, the selected term will be displayed as the main term on the page) • Date of Input • Year demoted (only displayed if the term was once a full term but is no longer so)
‘Select’ button	If you click on this button, a pop-up box is displayed giving you the option of selecting only this term or also all its narrower terms as well. If you click on “Only this term”, the current thesaurus term will be added to your search criteria. If you click on “All its narrower terms as well”, the current thesaurus term, its narrower terms and their narrower terms, etc., will be added to your search criteria.
‘Related term(s)’	Displays those thesaurus terms that are related to the main term. If you click on any term, the selected term will be displayed as the main term on the page.
‘Classification(s)’	Displays those Classification Codes that are related to the main term. If you click on any term, the selected term will be displayed as the main term on the page.
Classification code and text	If you click on any Classification, the selected Classification will be displayed on the Browse Classification page.
‘Narrower term(s)’	Displays those terms that are immediately below the main term in the hierarchy of which the main term forms a part. If you click on any term, the selected term will be displayed as the main term on the page.
‘Terms selected’ box	See the Search Aid Summary section.
‘Go to Search’ button	Click on this button to go to the Search Classification page with the selected classifications pre-populated into the ‘SEARCH FOR’ text box.
‘Clear’ button	If you click on this button, all the terms displayed in the ‘Terms selected’ box the will be automatically removed.

Search List of Journals page



This page is accessed from the Sub-Page Navigation Toolbar, which is displayed when you click on the Search Aids tab on the Main Page Navigation Toolbar.

The page allows you to search the Inspec List of Journals.

Field	Function
'SEARCH IN' fields	Use these boxes to select which fields you wish to search. By default, the five boxes are set to: • Global Word Search (i.e. any word in any field) • Journal title • Publisher • ISSN • Language (in that order). If you click on the drop-down arrow next to the field, a full scrollable list of the search fields available will be displayed. You can then click on one of these entries to select it. The options on the drop-down list are: • Global Word Search • Country of publication • CODEN • ISSN • Journal title • Language • Publisher • URL
'SEARCH JOURNALS FOR' text boxes	In these boxes, you can enter any combination of keywords you wish to search for.
Logic drop-down list	This list is displayed to the left of the list of 'SEARCH IN' fields. By default, each box is set to 'AND'. This means that those search terms entered in the row above this box will be combined with the search terms entered to the right of the box by using the Boolean 'AND' operator. If you click on the drop-down arrow next to the field, you can change this operator to 'OR' or 'NOT' as required, by clicking on one of the entries to select it.
'Current Journals only' tick box	Tick this box if you want the search to only return journals that are in the currently Inspec List of Journals. Leave the box un-ticked if you want the search to include all journals (i.e. including those that are no longer current).
'Journals abstracted completely only' tick box	Tick this box if you want the search to only return journals that are abstracted completely (i.e. journals for which all articles are selected for inclusion in the Inspec Database). Leave the box un-ticked if you want the search to include all journals.
'Search Journals' button	Click on this button (or press the 'Enter' key) to search for journals using the criteria entered above and display the results below.
'Clear' button	This button can be found just under the search boxes as well as towards the end of the page. Click on this button to clear all of the 'SEARCH JOURNALS FOR' text boxes and to reset the 'SEARCH IN' field boxes to the default settings.

Once you have performed a search, the following search results will be displayed:

- The number of journals returned for the search criteria
- A list of the journal titles retrieved (up to the maximum number permitted). If you click on one of these, the corresponding journal title and all its details will be displayed on the Journal Details page
- The journal's publisher, ISSN, CODEN and language (for each of the journal titles)

'Terms selected' box – See the Search Aid Summary section.

Journal Details page

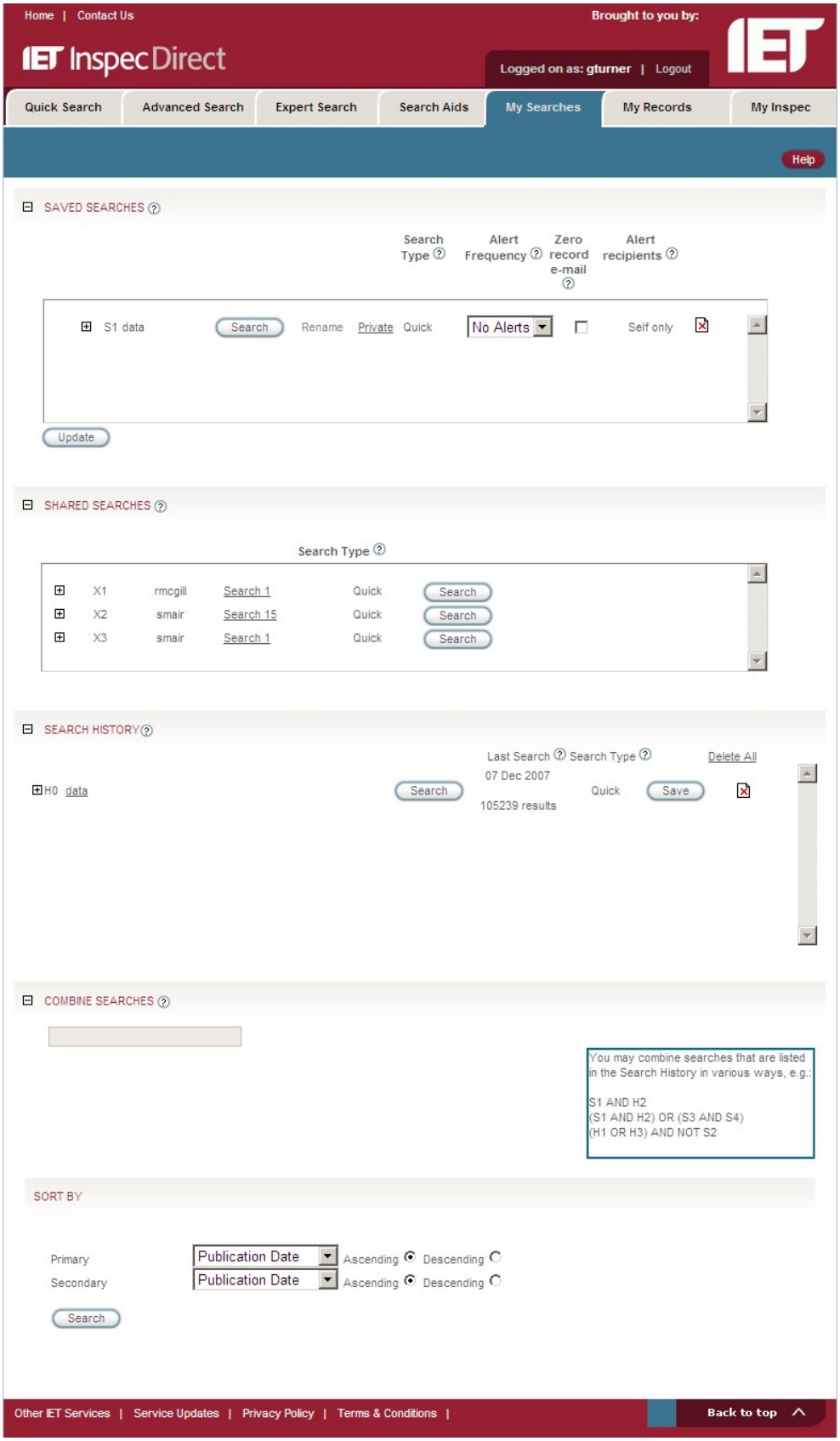
This page is accessed by clicking on one of the journal titles that is displayed in the list of search results on the Search List of Journals page.

The page allows you to view details for a particular journal.

Field	Function
Journal details	The following details are displayed: • Status (i.e. whether the journal is currently covered by Inspec) • Publisher • Issues on Inspec (i.e. the dates and volumes of the journal that have been covered by Inspec) • Frequency (i.e. how often the journal is published) • Abbreviated Title/Country (of publication) • CODEN • ISSN • BLDSC (British Library Document Supply Centre) shelfmark • Non-journal series • Title cross-reference (includes details of any related title, e.g. previous name, previous language)
‘Select’ button	If you click on this button, the displayed journal will be added to the ‘Terms selected’ box.
‘Terms selected’ box	See the Search Aid Summary section.
‘Go to Search’ button	Click on this button to go to the Search List of Journals page with the selected journal(s) pre-populated into the ‘SEARCH JOURNALS FOR’ text boxes.

Personalisation Pages

My Searches page



This page is accessed from the Sub-Page Navigation Toolbar, which is displayed when you click on the My Searches tab on the Main Page Navigation Toolbar.

The page allows you to:

- View, maintain and run your own Saved Searches
- View and run any Shared Searches owned by other users associated with the same site subscription as you
- View, maintain, save and run your own Search History
- Create combined searches from your Saved Searches and Search History

Field	Function

Saved Searches

A casual user might have a couple of saved searches; a librarian might have 30 or more.

Saved searches may be sent as e-mail alerts to all the e-mail addresses in your address book. The e-mail alert will tell you your saved search name and the number of new records returned which are listed in the attached PDF. The PDF contains records in the 'Abstract' display format (see the Record Display section for an explanation of which fields are displayed in which format). To amend your alert preferences and address book preferences, see the 'My Inspec/Alerts Preferences' page.

'SAVED SEARCHES +/-' toggle	Click on the '-' to display your saved searches. Click on the'+' to hide your saved searches.
Saved Search fields '+/-' toggles	Click on the '-' to display the full search details for this search. Click on the'+' to hide the search details.
Sequence IDs	Displays the search number (S1, S2, S3, etc.) for each search. One row is displayed for each saved search, ordered by search name (see below).
Search names	If you click on a search name, the search criteria are displayed on the appropriate search page (as dictated by the Search Type). If it is a Combined Search, the search criteria are displayed on the Expert Search page.
'Search' buttons	If you click on one of these buttons, the corresponding search will be run and the results displayed on the Search Results page.
'Rename'	If you click on this, you will be able to type in a new name for the search.
'Shared/Private' toggle	Use this toggle to set up which of your saved searches you wish to share with other users. This is only displayed if either your IP address is linked to an active site subscription or your account is linked to an active non-IP controlled site subscription. If set to 'Private', the search will not be made available to other users. If set to 'Shared', it will be visible to related users. Click on it to toggle between the two options.
'Search Type'	Shows whether the search was performed on the Quick Search page, the Advanced Search page or the Expert Search page.
'Alert Frequency' drop-down list	By default, this is set to 'No Alert'. Click on this to change how often you will be alerted with new results from the corresponding search, e.g. weekly, monthly.

Field	Function
'Alert Recipients'	'Self only' means that alerts will be sent to your e-mail address only. 'Self +n' alerts will also be sent to n other e-mail addresses. If you click on this, a dialogue page lists the e-mail recipients for the alert. You will be able to: • Add new e-mail recipients (from your address book) • Remove existing e-mail recipients • Add new e-mail recipients to your address book
'RSS' icon	This is only displayed if your IP address is linked to an active site licence. If you click on this icon, a dialogue page will be displayed showing a link to the Inspec Direct RSS feed which can be copied and pasted into your RSS reader. If you then click on 'Subscribe RSS'; you will be subscribed to the feed (Note: you should only click on this if you have an RSS reader installed). The RSS details from the corresponding search will then be added to your RSS reader records. An RSS feeds consists of a list of records returned from your search query, including the Titles and Authors of those records. If you click on either the Title or on the arrow next to the Authors, you will be taken to the full Inspec record. On the right-hand side of the RSS feed, there is a box in which you may: • Enter a search term to filter the records to just those containing the text you have entered • Click on 'All' to display all the records in the feed • Sort the records by date, title or author • Filter the records by document type (e.g. Journal papers only)
Zero record e-mail tick box	Tick this box to send an alert even if no records are retrieved by the search. Un-tick the box to prevent the system from sending an alert if there are no new records.
Delete icon	If you clicks on this icon, the search will be deleted from the list of saved searches.

Shared Searches

This section is used to see which searches you and other users have made available to all users. The Shared Search details will only be displayed if there are some shared searches available to you and if either your IP address is linked to an active site account or you are logged on and your account is linked to an active non-IP controlled site subscription.

'SHARED SEARCHES +/-' toggle	Click on the '-' to display your shared searches. Click on the'+' to hide your shared searches.
Shared Search fields '+/-' toggles	Click on the '-' to display the full shared search details for this search. Click on the'+' to hide the search details.
Sequence IDs	Displays the search number (X1, X2, X3, etc.) for each search. One row is displayed for each shared search, ordered by owner and then search name (see below).
Owners	Displays the User Names of the users who own the shared searches
Search names	If you click on a search name, the search criteria are displayed on the appropriate search page (as dictated by the Search Type). If it is a Combined Search, the search criteria are displayed on the Expert Search page.

Field	Function
‘Search Type’	Shows whether the search was performed on the Quick Search page, the Advanced Search page or the Expert Search page.
‘Search’ buttons	If you click on one of these buttons, the corresponding search will be run and the results displayed on the Search Results page.
‘Save’ button	See the Save Search section.

Search History

Typically, a maximum of around 25 searches will be displayed, although you can re-set this maximum to 10, 50 or 100 on the Search Preferences page.

Note: Any Search History records which are older than the maximum permitted period will be deleted automatically once that period has expired.

‘SEARCH HISTORY +/-’ toggle	Click on the ‘-’ to display your search history. Click on the‘+’ to hide the search history.
‘Search criteria +/-’ toggles	Click on the ‘-’ to display the full details of the search criteria for this search. Click on the‘+’ to display only the first line of the search criteria.
Sequence IDs	Displays the search number (H1, H2, H3, etc.) for each search. One row is displayed for each shared search, ordered by its creation date. Any old search history items are deleted automatically.
Search criteria	The first 50 or so characters only of your search strategy are displayed. If you click on one of these, the full search criteria will be displayed on the appropriate search page (as dictated by the Search Type). If it is a Combined Search, the search criteria are displayed on the Expert Search page.
‘Search’ buttons	If you click on one of these buttons, the corresponding search will be run and the results displayed on the Search Results page.
‘Last Search’	Shows the date on which the search was last run and an estimation of the number of results retrieved when the search was last run.
‘Search Type’	Shows whether the search was performed on the Quick Search page, the Advanced Search page or the Expert Search page.
‘Save’ button	See the Save Search section.
‘Delete all’	If you click on this, the entire search history will be deleted.
‘Delete’ icons	If you click on one of these icons, the corresponding search will be deleted from the search history list.

Combine Searches

You may combine searches that are listed in the Search History in various ways, e.g.:

S1 AND H2

(S1 AND H2) OR (S3 AND S4)

(H1 OR H3) NOT S2

‘COMBINE SEARCHES +/-’ toggle	Click on the ‘+’ to hide the details of your combined searches. Click on the‘-’ to re-display your combined searches.

Field	Function
Combined search text box	You can enter a combined search into this box. This may include any of the following: • S1, …, Sn (corresponding to a row from the Saved Searches section) • H1, …, Hn (corresponding to a row from the Search History section) • X1, …, Xn (corresponding to a row from the Shared Searches section) • ‘AND’, ‘OR’, ‘NOT’ logic connectors • Parentheses ‘(’ or ‘)’
‘Sort By’ options	See the Record Navigation Toolbar.
‘Search’ button	If you click on this button then, if the combined search that you entered into the text box is valid, the search results will be displayed on the Search Results page. If the search is not valid, an error message will be displayed. Possible errors may include: • Your search string contains text other than S1-Sn, H1-Hm, ‘AND’, ‘OR’, ‘NOT’, ‘(’ or ‘)’ • There is a parentheses mismatch error, e.g. a ‘(’ but no corresponding ‘)’ • Two logic connectors are adjacent to each other with no search in between • Two searches are adjacent to each other with no logic connector in between
Combine Search Tips box	This box displays a list of useful tips to help you in combining your searches.

My Folders page

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Quick Search
Advanced Search
Expert Search
Search Aids
My Searches
My Records
My Inspec
My Folders
Current Record
Help
Folder 11
Rename
Delete
The link to data processing
Beck I.
Special instrumentation for myocardial infarction research
Webb G.N. Friesinger G.C. Warthen L. Lindsay W. Johns Hopkins Hopsital, Baltimore, MD USA
Acquisition and coding of analog data for digital analysis-software
Henkins A.R. Moss C.B. Univ. Washington, Seattle, WA USA
Acquisition and coding of analog data for digital analysis-application
Nathan M.A. Univ. Washington, Seattle, WA USA
New Folder
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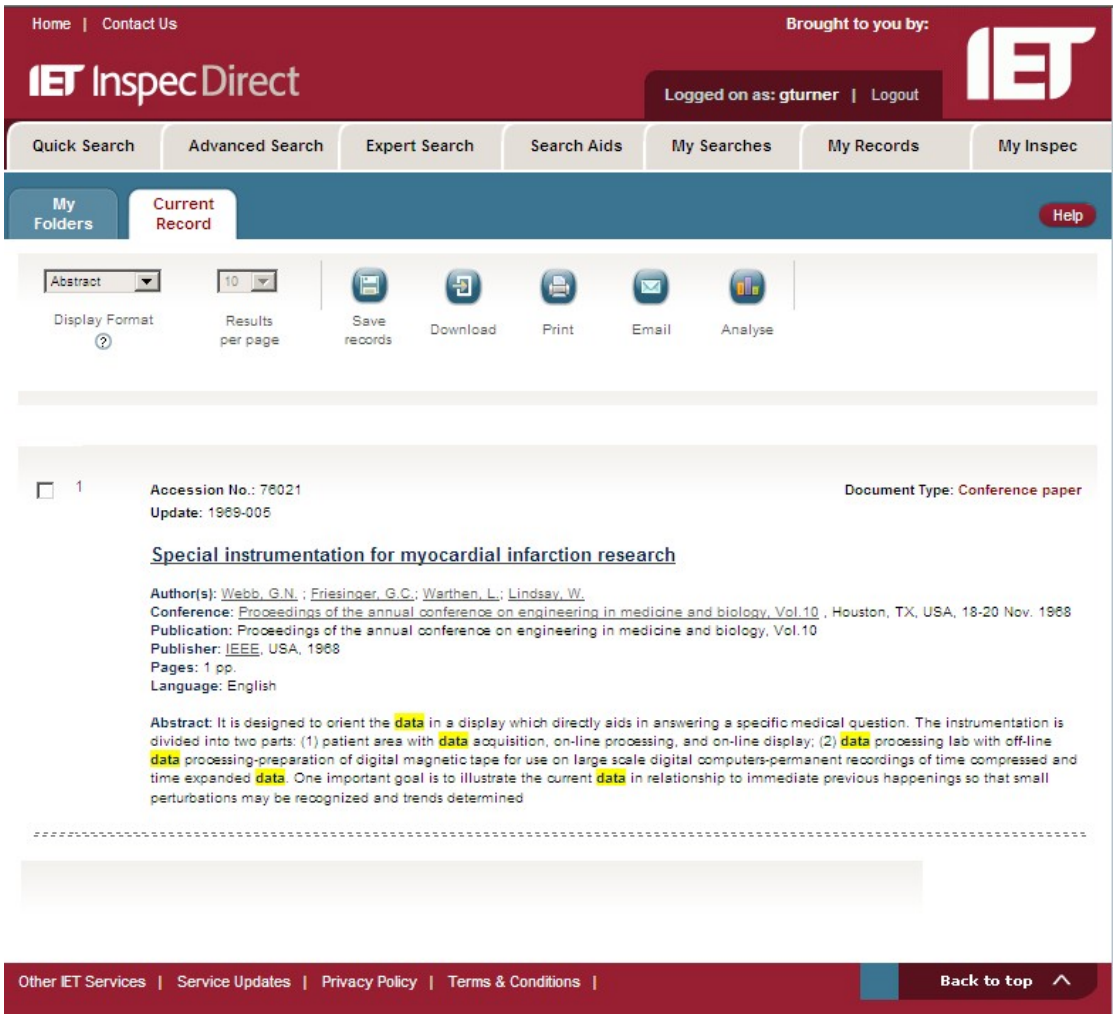
Back to top

This page is accessed from the Sub-Page Navigation Toolbar, which is displayed when you click on the My Records tab on the Main Page Navigation Toolbar.

The page allows you to view and maintain the record details which you have previously saved to your folders.

Field	Function
'My Folders +/-' toggle	Click on the '+' to hide the folder contents. Click on the '-' to re-display the folder contents.
My Folders fields (one row for each folder, ordered by folder name)	These fields show the folder name and number of records in the folder. Click on these to toggle between displaying and hiding the folder contents (this is the same as using the 'My Folders +/-' toggle).
Record displays	Within each folder, the following will be displayed for each record: • Record's title (If you click on this, the record will be displayed on the My Current Record page) • Author's name • Full text (if available). If you click on this, a new browser window for the appropriate Web site will be opened up • 'Save to Folder' icon (see the Save to Folder section) • 'Delete' icon (if you click on this, the record details will be deleted from the folder)
'Download' icon	See the Download Records section.
'Print' icon	See the Print Records section.
'E-mail' icon	See the E-mail Records section.
'Analyse' icon	See the Analyse Records section.
'Rename' button	If you click on this button, you will be able to rename the folder.
'Delete' button	If you click on this button, a pop-up box will ask you to confirm whether you want to delete the folder. If you confirm the deletion, the folder will be deleted.
'New Folder' button	This is only displayed if you have fewer folders than the maximum allowed. If you click on this button, a new folder will be created at the bottom of the folder list. You will be able to overwrite the default folder name of "Folder 1" (or "Folder 2" etc. if the name "Folder 1" is already in use) as if you had clicked on the 'Rename' button.

My Current Record page


Home | Contact Us
Brought to you by:
IET InspecDirect
Logged on as: gturner | Logout
Quick Search
Advanced Search
Expert Search
Search Aids
My Searches
My Records
My Inspec
My Folders
Current Record
Help
Abstract
Display Format
10
Results per page
Save records
Download
Print
Email
Analyse
1
Accession No.: 76021
Update: 1968-006
Document Type: Conference paper
Special instrumentation for myocardial infarction research
Author(s): Webb, G.N. ; Friesinger, G.C.; Warthen, L.; Lindsay, W.
Conference: Proceedings of the annual conference on engineering in medicine and biology, Vol.10 , Houston, TX, USA, 18-20 Nov. 1968
Publication: Proceedings of the annual conference on engineering in medicine and biology, Vol.10
Publisher: IEEE, USA, 1968
Pages: 1 pp.
Language: English
Abstract: It is designed to orient the data in a display which directly aids in answering a specific medical question. The instrumentation is divided into two parts: (1) patient area with data acquisition, on-line processing, and on-line display; (2) data processing lab with off-line data processing-preparation of digital magnetic tape for use on large scale digital computers-permanent recordings of time compressed and time expanded data. One important goal is to illustrate the current data in relationship to immediate previous happenings so that small perturbations may be recognized and trends determined
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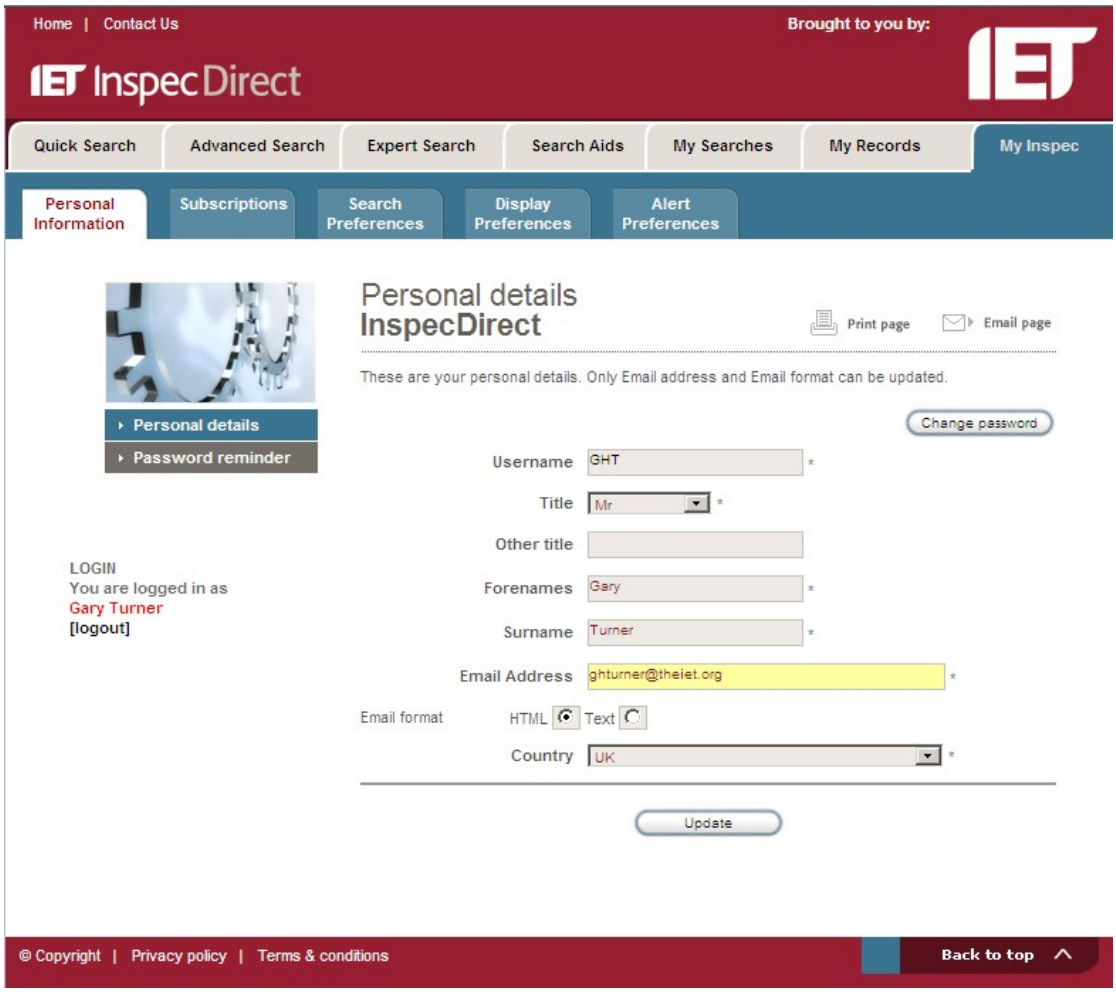
Back to top

This page is accessed when you click on a record on the My Folders page.

The page allows you to view the details for a record which you have previously saved to your folders.

Field	Function
'Display & Data Options' icons, 'Refine Results' button and Record Navigation buttons	See the Record Navigation Toolbar section.
Record tick box	Tick this box to select the record for later processing.
Record contents	Shows all the details for the record (excluding the classification and indexing details). See the Field Definitions section for a list of the fields displayed.

Personal Information page



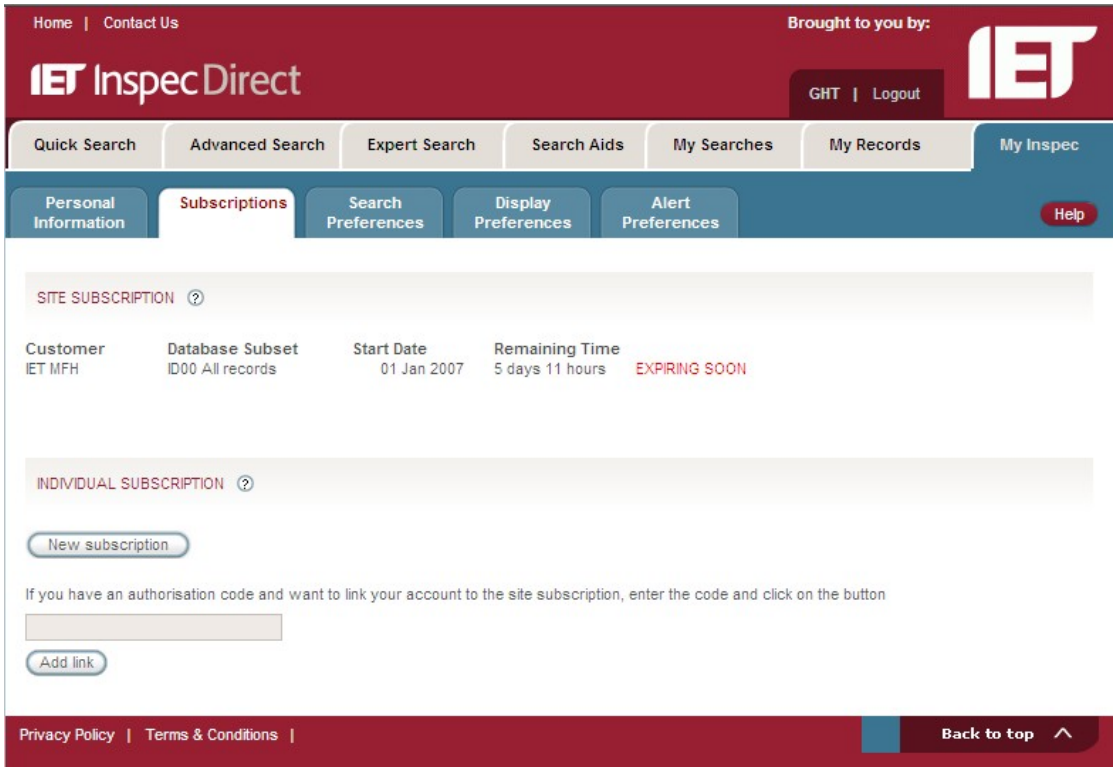
This page is accessed from the Sub-Page Navigation Toolbar, which is displayed when you click on the My Inspec tab on the Main Page Navigation Toolbar.

The page allows you to view and maintain your Personal Information details.

Field	Function
'User Name' text box	Shows your User Name. This cannot be changed.
'Change password' button	Click on this button if you want to change your password. You will then be presented with a dialogue page that will enable you to type in a new password. Passwords must: • be at least 8 characters long • consist of alphanumeric characters only • include at least 2 digits
'Contact us' button	Click on this button if you want to e-mail the IET to change your title, other title, forenames or surname.
'Title' text box	Shows your title (e.g. Mr., Mrs., Miss). Click on the 'Contact us' button if you want to change this.
Other title text box	Shows your title if it is not available on the 'Title' drop-down list (e.g. Prof.). Click on the 'Contact us' button if you want to change this.

‘Forenames’ text box	Shows your forename(s). Click on the ‘Contact us’ button if you want to change this.
‘Surname’ text box	Shows your surname. Click on the ‘Contact us’ button if you want to change this.
‘Email address’ text box	Shows your e-mail address. This is editable.
‘Email format’ drop-down list	Shows your preferred e-mail format (e.g. HTML, plain text). This can be changed by choosing the required option from the drop-down list.
‘Country’ text box	Shows your country. Click on the ‘Contact us’ button if you want to change this.

Subscriptions page



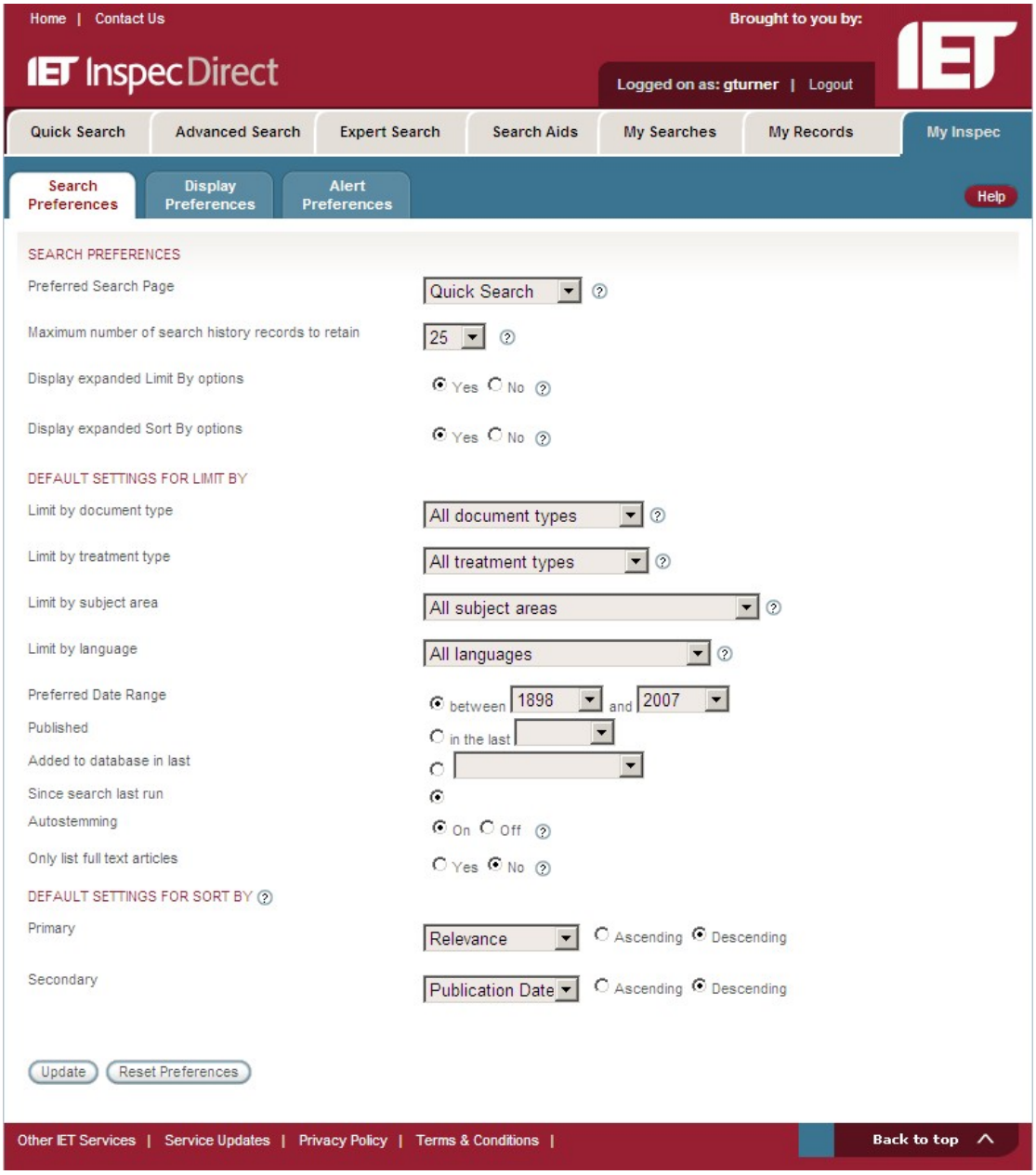
This page is accessed from the Sub-Page Navigation Toolbar, which is displayed when you click on the My Inspec tab on the Main Page Navigation Toolbar.

The page allows you to view and maintain your Site Link and Individual Subscription details.

Field	Function
Site Subscription	
Use this section to take out subscriptions on a site or organisation-wide basis.	
‘Linked to site’	Shows the name of the site that your account is linked to (if any).
‘Authorisation code’	Shows the authorisation code that is required to access your account (this is only displayed if you have such an authorisation code).
‘Add link to current site’ button	This is only displayed if your account is not linked to an active site subscription but your IP address is linked to an active site subscription. If you click on this button, your account will be linked to the current site.
‘Change link to current site’ button	This is only displayed if your account is linked to an active site but your IP address is linked to a different active site. If you click on this button, you will be asked to confirm the action (some help text will indicate what the implications are). If you confirm the action, the old link (and any authorisation code) will be removed and the account will be linked to the current site.
Individual Subscriptions	
Use this section to take out subscriptions on an individual or personal basis.	
‘Subscription number’	Shows the system-generated number of each subscription.
‘Subscribed to’	Shows the Inspec Current Alert services to which you are subscribed. This may be the whole database or a subset of it.
‘Renew’ button	If you click on this button, you will be able to re-subscribe to the named service if it has expired.
‘Start Date’	Shows when your subscription to the service began.
‘Remaining’	Shows how many days & hours (or hours & minutes if less than 24 hours) still remain until your subscription to the service expires.
Subscription status text	Shows ‘EXPIRED’ for subscriptions that have expired, ‘EXPIRING SOON’ if the subscription has less than 30 days left, or is blank otherwise.
‘New subscription’ button	If you click on this button, you will be offered a list of Inspec Current Alert services to which you can subscribe, from which you may choose which ones you wish to subscribe to.
‘Change link to site subscription’ button	This is only displayed if you are already linked to a site subscription but your current IP address is linked to a different active site. If you click on this button, your account will be linked to the current site.
‘Add link to site subscription’ button	This is only displayed if you are not currently linked to a site subscription but your current IP address is linked to an active site. If you click on this button, your account will be linked to the current site.
Authorisation Code Fields	
These are only displayed if you are not logged on from an IP address associated with an active site subscription.	
‘Authorisation Code’ text box	If you have an authorisation code and want to link your account to the site subscription, enter the code into this box.

Field	Function
‘Change Link’ button	This is only displayed if you are already linked to an active site subscription. If you click on this button, your account will be linked to the appropriate site account, provided the authorisation code that you entered is valid and not already in use.
‘Add Link’ button	This is only displayed if you are not already linked to an active site subscription. If you click on this button, your account will be linked to the appropriate site account, provided the authorisation code that you entered is valid and not already in use.

Search Preferences page



This page is accessed from the Sub-Page Navigation Toolbar, which is displayed when you click on the My Inspec tab on the Main Page Navigation Toolbar.

The page allows you to view and maintain your search page preferences.

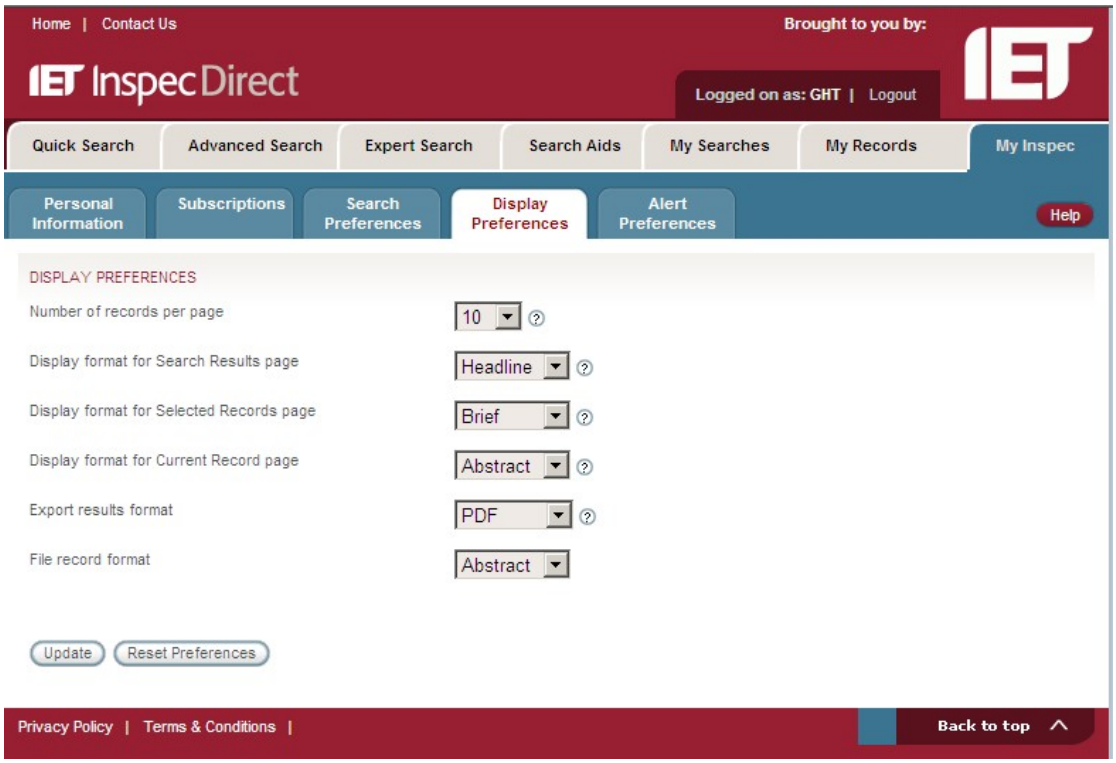
Field	Function
Search preferences	
‘Preferred Search Page’ drop-down list	Use this list to choose whether you go to the Quick Search page, the Advanced Search page or the Expert Search page when you first log in.
‘Maximum number of search history records to retain’ drop-down list	Use this list to choose how many search history records you wish to see in your Search History list. Valid values are: 10, 25, 50 and 100 records.
‘Display expanded Limit By options’ radio buttons	Click on ‘Yes’ if you wish to see the full list of ‘Limit By’ options on the Advanced Search and Expert Search pages. Click on ‘No’ if you only require a summary display.
‘Display expanded Sort By options’ radio buttons	Click on ‘Yes’ if you wish to see the full list of ‘Sort By’ options on the Advanced Search and Expert Search pages. Click on ‘No’ if you only require a summary display.
Default Settings for ‘Limit By’ (Advanced and Expert searches only)	
‘Limit by document types’ drop-down list	Use this list to choose which document type you wish to be displayed as the default option on the Advanced Search and Expert Search pages.
‘Limit by treatment types’ drop-down list	Use this list to choose which treatment type you wish to be displayed as the default option on the Advanced Search and Expert Search pages.
‘Limit by subject area’ drop-down list	Use this list to choose which subject area you wish to be displayed as the default option on the Advanced Search and Expert Search pages.
‘Limit by language’ drop-down list	Use this list to choose which language you wish to be displayed as the default option on the Advanced Search and Expert Search pages.
‘Preferred Date Range’ radio buttons	Click on ‘Between’ or ‘In the last’ to choose which of the corresponding buttons you wish to be displayed as the default option on the Advanced Search and Expert Search pages.
‘Between’ year drop-down list	Use this list to choose which ‘Between’ year you wish to be displayed as the default option on the Advanced Search and Expert Search pages. Valid values are from 1898 to the current year.
‘And’ year drop-down list	Use this list to choose which ‘And’ year you wish to be displayed as the default option on the Advanced Search and Expert Search pages. Valid values are from 1898 to the current year.
‘In the last’ period drop-down list	Use this list to choose which publication-date time period you wish to be displayed as the default option on the Advanced Search and Expert Search pages.
‘Added to Database in last’ period drop-down list	Use this list to choose which database-update time period you wish to be displayed as the default option on the Advanced Search and Expert Search pages.
‘Autostemming’ radio buttons	Click on ‘On’ or ‘Off’ to choose which of the corresponding buttons you wish to be displayed as the default ‘Autostemming’ option on the Advanced Search and Expert Search pages.

Field	Function
'Only list full text articles' radio buttons	Click on 'On' or 'Off' to choose which of the corresponding buttons you wish to be displayed as the default 'Only list full text articles' option on the Advanced Search and Expert Search pages.

Default Settings for 'Sort By' (Advanced and Expert searches only)

'Primary' sort sequence drop-down list	Use this list to choose which primary sort sequence you wish to be displayed as the default option on the Advanced Search and Expert Search pages. Valid values are 'Accession Number', 'Publication Date', 'Relevance', 'Document type' or 'Author Name'.
'Secondary' sort sequence drop-down list	Use this list to choose which secondary sort sequence you wish to be displayed as the default option on the Advanced Search and Expert Search pages. Valid values are as for the 'Primary' sort sequence above.
'Ascending'/'Descending' radio buttons	Click on 'Ascending' or 'Descending' to choose which of the corresponding buttons you wish to be displayed as the default options on the Advanced Search and Expert Search pages.
'Reset these preferences to defaults' button	If you click on this button, the preferences on the page will be re-set back to the original defaults (when the account was first opened).

Display Preferences page



This page is accessed from the Sub-Page Navigation Toolbar, which is displayed when you click on the My Inspec tab on the Main Page Navigation Toolbar.

The page allows you to view and maintain your record display page preferences.

Field	Function
'Number of records per page' drop-down list	Use this list to choose how many records you wish to be displayed on the Search Results page. Valid values are 5, 10, 15, 25, 50 and 100.
'Display format for Search Results page' icons	Click on the appropriate icon to choose the default display format for the Search Results page. The options are: • Headline details only • Brief bibliographic details • Abstract plus bibliographic details • Extended details (including author e-mail addresses, classification and indexing) See the 'Record Display Formats' section for an explanation of which fields are displayed in which format.
'Display format for Selected Records page' icons	Click on the appropriate icon to choose the default display format for the Selected Records page. The options are as for the Search Results page above.
'Display format for Current Record page' icons	Click on the appropriate icon to choose the default display format for the Current Record page. The options are as for the Search Results page above.
'Export results format' drop-down list	Use this list to choose the file format in which search results records should be exported. Valid options are 'PDF', 'Text', 'RIS', RefWorks' and 'BibText'.
'File record format' drop-down list	Use this list to choose the record format in which search results records should be printed, e-mailed and exported. Valid options are 'Headline', 'Brief', 'Abstract' and 'Extended' (see 'Display format for Search Results page' icons above).
'Update' button	If you click on this button, the preferences that you have chosen will be saved.
'Reset preferences' button	If you click on this button, the preferences on the page will be re-set back to the original defaults (when the account was first opened).

Record Display Formats

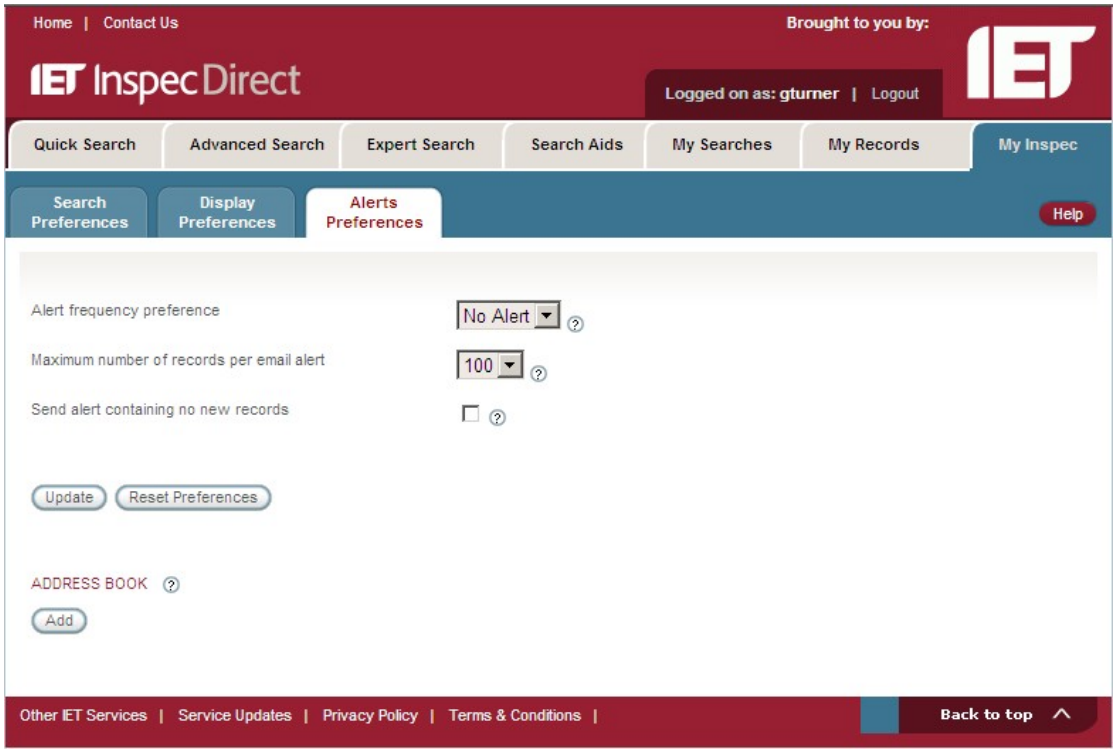
The following table shows which fields are displayed in each of the display formats ('Headline', 'Brief', 'Abstract' and 'Extended'):

Field Type	Field	Headline	Brief	Abstract	Extended
Publication identifiers	CODEN	No	Yes	Yes	Yes
	Contract number	No	No	No	Yes
	Document collection URL	No	Yes	Yes	Yes
	ISBN	No	Yes	Yes	Yes
	ISSN	No	No	Yes	Yes
	Journal Identification Number (JIN)	No	Yes	Yes	Yes
	Report number	No	Yes	Yes	Yes
	SICI	No	No	Yes	Yes
Publication title	Book title	No	Yes	Yes	Yes
	Conference title	No	Yes	Yes	Yes
	Journal title	No	Yes	Yes	Yes
	Report title	No	Yes	Yes	Yes
Publication information	Availability	No	No	No	Yes
	Copyright statement	No	No	No	No
	Country of publication	No	Yes	Yes	Yes
	Issuing organisation	No	Yes	Yes	Yes
	Part number	No	Yes	Yes	Yes
	Place of publication	No	Yes	Yes	Yes
	Price	No	No	Yes	Yes
	Publication date	No	Yes	Yes	Yes
	Publication year	Yes	No	No	No
	Publisher	No	Yes	Yes	Yes
	Unconventional medium	No	No	Yes	Yes
	Volume and issue number	No	Yes	Yes	Yes

Field Type	Field	Headline	Brief	Abstract	Extended
Document identifiers	Accession number	No	Yes	Yes	Yes
	Document number	No	No	No	Yes
	DOI (Full-text link)	No	Yes	Yes	Yes
	Material Identification Number (MIN)	No	Yes	Yes	Yes
	Title	Yes	Yes	Yes	Yes
	U.S. Copyright Clearance Center code	No	Yes	Yes	Yes
	U.S. Government Clearing House number	No	No	Yes	Yes
	URL	No	Yes	Yes	Yes
Pagination	Number of pages	No	No	Yes	Yes
	Page numbers	No	Yes	Yes	Yes
Personal information	Affiliation	Yes	Yes	Yes	Yes
	Affiliation country	Yes	Yes	Yes	Yes
	Author	Yes	Yes	Yes	Yes
	Editor	No	Yes	Yes	Yes
	Translator	No	Yes	Yes	Yes
	E-mail	No	No	No	Yes
Indexing	Astronomical object indexing	No	No	No	Yes
	Chemical indexing	No	No	No	Yes
	Classification	No	No	No	Yes
	Controlled indexing	No	No	No	Yes
	Numerical data indexing	No	No	No	Yes
	Treatment codes	No	No	No	Yes
	Uncontrolled indexing	No	No	No	Yes
	IPC Code	No	No	No	Yes
Conference information	Conference country	No	Yes	Yes	Yes
	Conference dates	No	Yes	Yes	Yes
	Conference location	No	Yes	Yes	Yes
	Conference sponsor	No	Yes	Yes	Yes

Field Type	Field	Headline	Brief	Abstract	Extended
Patent information	Amendment date	No	No	No	Yes
	Country of original patent application	No	No	Yes	Yes
	Country of patent	No	Yes	Yes	Yes
	Date filed or submitted	No	Yes	Yes	Yes
	Original patent application number	No	No	Yes	Yes
	Patent assignee	No	Yes	Yes	Yes
	Patent number	No	Yes	Yes	Yes
	Patent priority date	No	No	Yes	Yes
Other	Abstract	No	No	Yes	Yes
	Document type	Yes	Yes	Yes	Yes
	Language	No	Yes	Yes	Yes
	Number of references	No	No	Yes	Yes
	Update	No	Yes	Yes	Yes

Alerts Preferences page



This page is accessed from the Sub-Page Navigation Toolbar, which is displayed when you click on the My Inspec tab on the Main Page Navigation Toolbar.

The page allows you to view and maintain your e-mail alert preferences and address book.

Alerts are sent as e-mails to all the e-mail addresses in your address book. The e-mail alert will tell you your saved search name and the number of new records returned which are listed in the attached PDF. The PDF contains records in the “Abstract” display format (see the Record Display Formats section for an explanation of which fields are displayed in which format).

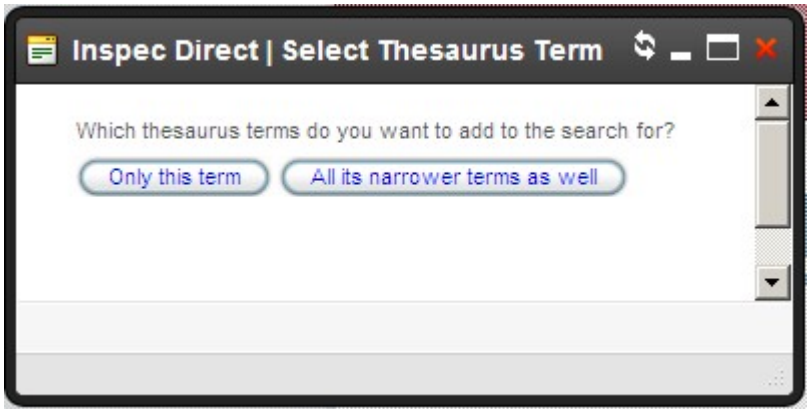
Field	Function
‘Alert frequency preference’ drop-down list	Use this list to choose how often to be alerted with new search results. Valid options are ‘No Alert’ and ‘Weekly’.
‘Maximum number of records on an email alert’ drop-down list	Use this list to choose the maximum number of records to send in an e-mail alert. Valid options are 10, 25, 50 or 100.
‘Send Alerts containing no new records’ tick box	Tick this box if you wish to be alerted even if your search does not retrieve any new records.
‘Reset these preferences to defaults (except Address book)’ button	If you click on this button, the preferences on the page will be re-set back to the original defaults (when the account was first opened) but the address book will not be emptied.

Address Book preferences

Use the Address Book to maintain a list of e-mail addresses to which you wish to send alerts. A maximum of five e-mail addresses may be entered into your Address Book.

E-mail addresses	One address is displayed for each entry in the Address Book.
‘Remove’ buttons	If you click on one of these, the corresponding e-mail address will be removed from the Address Book.
‘Add’ button	This is only displayed if you have not already set up the maximum permitted number of e-mail addresses in your address book. If you click on this button, an additional e-mail address field is displayed at the end of the email address list and you will be able to enter the e-mail address. The e-mail address will be validated (e.g. no spaces, only valid characters, only one ‘@’).

Dialogue pages


Inspec Direct | Select Thesaurus Term
Which thesaurus terms do you want to add to the search for?
Only this term
All its narrower terms as well

These are a general class of pages which are not part of the overall page hierarchy, being neither main pages or sub-pages. Typically, such a page contains a single question or series of questions. Once you have completed the dialogue page (or series of dialogue pages), you will return to the page you came from.

Field	Function
Questions/prompts	These will vary according to the page.
‘Return page’ button	Click on this button to return to the page displayed before the dialogue page or series of dialogue pages was displayed.

General Comments

The following are some general comments which apply across the system.

Item	Comment
A user can be logged in only once	If someone logs on to the same account, the previous user will be logged out and an error message will be displayed.
Field-level help	A small question mark ‘?’ icon is displayed immediately to the right of the text or icon for which help is bring provided. If you click on the ‘?’ icon, a pop-up box displays the associated help text, with an option to click to view more help.
Icons	If you mouse over an icon, text is displayed indicating the icon’s function.
‘+’ / ‘-’ toggles	If ‘+’ is displayed, additional information can be displayed by ticking on the ‘+’. If ‘-’ is displayed, the additional information will be hidden by ticking on the‘-’. You can toggle freely between these two options.
Drop-down lists	The current option is displayed by default. If you click on the down arrow to the right of the text box, the available options will be displayed and you will be able to select the required option. The text box will then contain the selected option.
Tick box toggles	If a tick is displayed, the option has been selected. If the tick box is empty, the option has not been selected. You can toggle freely between these two options.
Hyperlinks	You can click on these to take you to another page.
Bookmarking pages	You can bookmark any of the Inspec Direct pages. When you click to go to a bookmarked page, the page will be displayed if: • the bookmark is to a non-home page, you are logged on and you are linked to an active subscription, or • the bookmark is to a non-home page and your IP address is linked to an active site subscription. If neither of the above conditions apply, an error message will be displayed and you will be taken to the Logon page.
Phrase searching	You can perform a search that matches an exact phrase by using quotation marks (“ and ”). See the Exact Phrase Matches section for more details.

Item	Comment
Literal searching	You can specify literal characters for searches by using quotation marks (“ and ”). See the Literal Searching section for more details.
Boolean searching	You can perform searches using the Boolean operators AND, OR and NOT. See the Boolean Operators section for more details.
Proximity searching	You can perform searches using the proximity (adjacency) operator NEAR. See the Proximity Operator section for more details.
Precedence	You can perform searches using parentheses to specify the precedence of nested Boolean operators. For the Advanced Search this is only possible when specifying details for a single individual field, e.g. you can specify that the Author Name is (Author A OR (Author B AND Author C)). See the Search Term Precedence section for more details.
Truncation	You can enter a term or phrase using the wild-card character (*) for right or left truncation. See the Truncation and Wild-cards section for more details.
Single character wild cards	You can use the single-character wild-card (?) for searching, e.g. optimi?ation. See the Truncation and Wild-cards section for more details.
Synonyms	All searches return records for both the term searched for and any synonyms which have been set up for that term. The list of synonyms contains the US and UK spelling differences, amongst others. See the American/British Spellings and Synonyms section for more details.
Search term/phrase highlighting	Search terms and phrases will be highlighted in any displayed record field.
RSS generation	If you have an IP-controlled site licence, you can save a search, copy the corresponding RSS details into your RSS reader and receive details of any new records matching the criteria via your RSS reader.

Header and Footer functionality

Header

This header is displayed on all of the Inspec Direct pages.

Field	Function
'Home'	If you click on this, the Inspec Direct product home page will be displayed.
'Contact us'	If you click on this, the 'Contact us' dialogue page will be displayed, enabling you to contact the IET.
'Logout'	Click on this button to log out of the system and then display the Inspec Direct product home page.

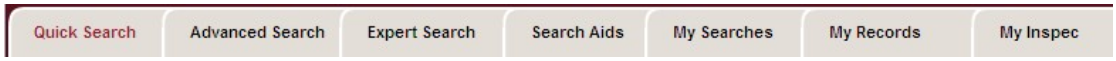
Footer

This toolbar is viewable on all of the Inspec Direct pages.

Field	Function
'Other IET services'	If you click on this, a dialogue page is displayed outlining other IET services that are available.
'Service Updates'	If you click on this, a dialogue page is displayed containing full details of service updates to the Inspec Direct system.
'Privacy Policy'	If you click on this, a dialogue page is displayed explaining the IET's privacy policy.
'Terms & Conditions'	If you click on this, a dialogue page is displayed explaining the terms & conditions for accessing and using the Inspec Direct system.
'Back to Top'	If you click on this, the page will be re-displayed from the top of the page.

Toolbar functionality

Main Page Navigation Toolbar



This toolbar is viewable on all of the Inspec Direct pages apart from the public Web site home page and related information pages. It allows you to quickly navigate between the system's functional areas.

The appropriate tab that you are currently accessing will be highlighted; clicking on this 'active' tab will have no effect, e.g. if you are viewing the My Searches page then clicking on the 'My Searches' tab will have no effect.

Tab	Function
'Quick Search'	Click on this button to view the Quick Search page.
'Advanced Search'	Click on this button to view the Advanced Search page.
'Expert Search'	Click on this button to view the Expert Search page.
'Search Aids'	Click on this button to view the Search Aids/Search Thesaurus page.
'My Searches'	Click on this button to view the My Searches page. If you are not logged on, the public Web site home page will be displayed.
'My Records'	Click on this button to view the My Records/My Folders page. If you are not logged on, the public Web site home page will be displayed.
'My Inspec'	Click on this button to view the My Inspec/Personal Information page. If you are not logged on, the public Web site home page will be displayed.

Sub-Page Navigation Toolbar

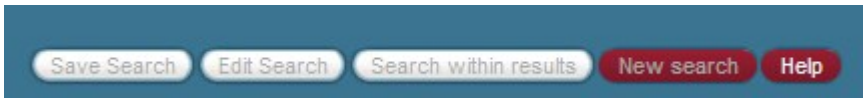
Some of the pages can only be accessed from one of the main pages on the Main Page Navigation Toolbar (see above). Once a main page has been selected, the sub-page details are displayed below the Main Page Navigation Toolbar and you can navigate around these sub-pages in a similar manner to the main page navigation.

The appropriate sub-page tab that you are currently accessing will be highlighted and clicking on this 'active' tab will have no effect.

Main page	Sub-page tab	Comments
Quick Search Advanced Search Expert Search	Search Results	Greyed out if there are no results to search
	Selected Records	Greyed out/not clickable until you select one or more records
	Current Record	Greyed out/not clickable until you click on a record to view its details
	Refine Results	Greyed out if there are no results to refine
Search Aids	Search Thesaurus	Always clickable
	Thesaurus Term	Greyed out/not clickable until you click on a term to view its details
	Search Classification	Always clickable
	Browse Classification	Always clickable
	Search List of Journals	Always clickable
	Journal Details	Greyed out/not clickable until you click on a journal to view its details

Main page	Sub-page tab	Comments
My Searches	None	All functions are available on a single page
My Records	My Folders	Always clickable
	My Current Record	Greyed out/not clickable until you click on a folder record to view its details
My Inspec	Personal Information	Always clickable
	Subscriptions	Always clickable
	Search Preferences	Always clickable
	Display Preferences	Always clickable
	Alert Preferences	Always clickable
All pages	'Help' button	Click on this button to view the appropriate page-level help. A pop-up box will display the details.

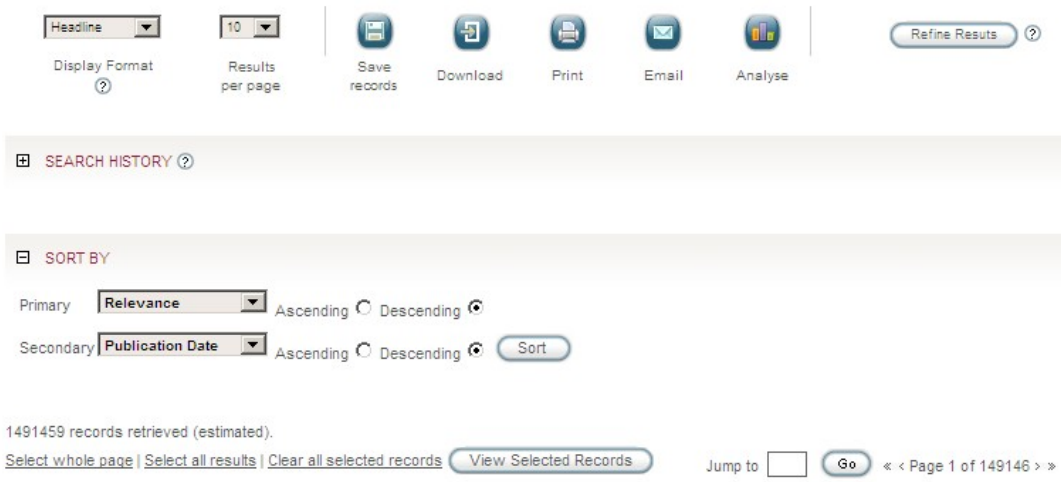
Search Options Toolbar



This toolbar is viewable on the Search Results, Selected Records, Current Record and Refine Results pages.

Field	Function
'Save Search' button	Click on this button to save the search you have entered so that you can re-submit it at a later time or date. See the Save Search section for more details.
'Edit Search' button	If you click on this button, the appropriate search page will be displayed, along with the search criteria so that you can amend them as required.
'Search Within Results' button	If you click on this button, the appropriate search page will be displayed. Any search criteria you then enter will be combined (Boolean 'AND') with the search results that have already been retrieved.
'New Search' button	If you click on this button, the appropriate search page will be displayed and the search parameters will be re-set back to their default values.

Record Navigation Toolbar



This toolbar is viewable on the Search Results, Selected Records, Current Record and My Current Record pages.

Note that the tab on the toolbar that you are currently accessing will be highlighted, and clicking on this 'active' tab will have no effect.

Field	Function
Display/Data Options	
Display & Data options include: • Changing the display format • Saving/printing/e-mailing/analysing records • Refining results	
'Display Format' icon	There are four record display options: • Headline • Brief • Abstract • Extended If you are logged on, the display will default to your preference for the page (as set up on the My Inspec/Display Results page). You will be able to click on the appropriate icon/text for the display format and the page will be refreshed, displaying the records in the required format.
'Results per page' drop-down list	This list is available on the Search Results and Selected Records pages only. If you are logged on, the display will default to your preference for the page. If you click on the drop-down list, a list of the options will be displayed and you will be able to select the one required. If you change the number of results per page, the search results will be re-displayed starting from page 1.
'Save Records' icon	See the Save To Folder section
'Download' icon	See the Download Records section.
'Print' icon	See the Print Records section.

Field	Function
‘E-mail’ icon	See the E-mail Records section.
‘Analyse’ icon	See the Analyse Records section.
‘Refine Results’ button	If you click on this button, the Refine Results page is displayed.

Page and Record Navigation

These icons, buttons and text boxes are displayed both in the Record Navigation Toolbar and at the bottom of the page.

‘Jump to’ text box	Enter the results page (Search Results and Selected Records pages) or record number (Current Record and My Current Record pages) that you wish to go to into the text box.
‘Go’ button	If you click on the ‘Go’ button having entered a valid page number or record number into the ‘Jump to’ text box, the appropriate page of results or record will be displayed. If the page/record number is out of the range of the pages/records available, either the first or the last page/record will be displayed, as appropriate. If the text entered was invalid, an error message will be displayed.
‘|<<’ icon	If you click on this icon, the first page/record is displayed. If there is only one page/record, this option is greyed out (not clickable).
‘<’ icon	If you click on this icon, the previous page/record is displayed. If there is no previous page/record, this option is greyed out (not clickable).
‘>’ icon	If you click on this icon, the next page/record is displayed. If there is no next page/record, this option is greyed out (not clickable).
‘>>|’ icon	If you click on this icon, the last page/record is displayed. If there is only one page/record, this option is greyed out (not clickable).

Search History

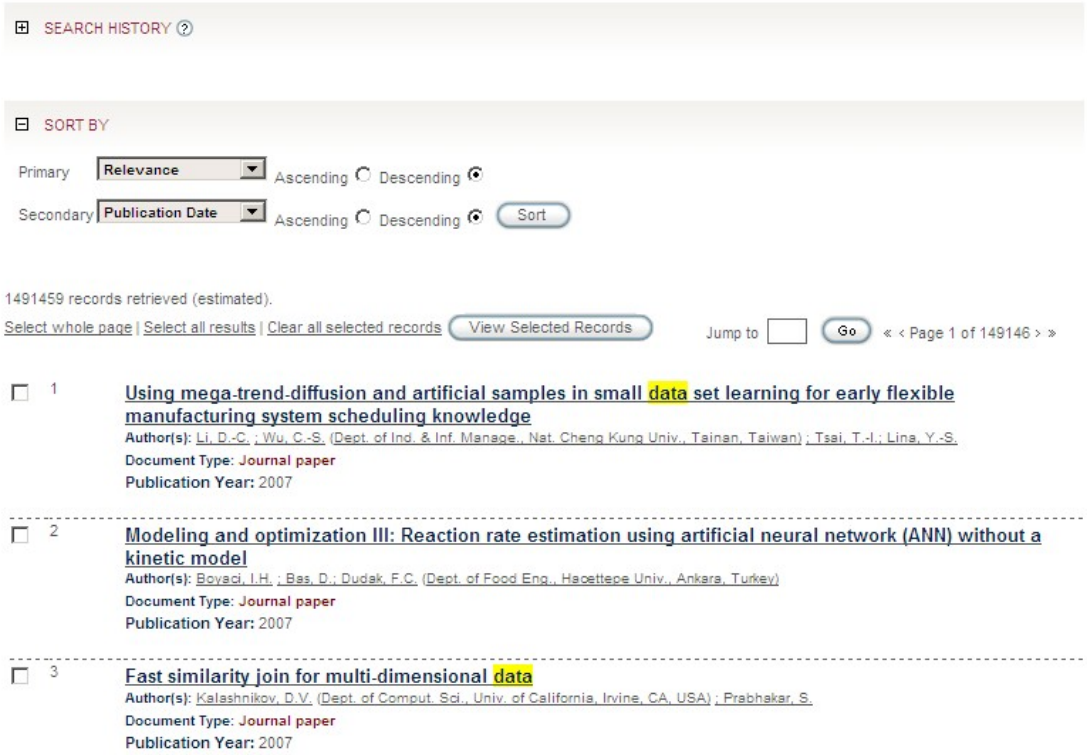
The Search History is displayed on the Search Results, Selected Records and Current Record pages only. See the Record Display section.

Sort By

‘SORT BY’ fields	This list of fields enables you to sort your search results using various criteria. Click on ‘+’ to display the full ‘Sort by’ options. You will then be able to alter the settings. Click on ‘-’ to display a summary of the ‘Sort by’ options.
‘Primary’ and ‘Secondary’ sort sequences	The records displayed in the list of search results will be displayed sorted first by the field specified in the ‘Primary’ box and then by the field specified in the ‘Secondary’ box. If you click on the drop-down arrows next to the fields in these two boxes, the available fields to sort on will be displayed. You can then click on these entries to select them.
‘Ascending/Descending’ radio buttons	The records displayed in the list of search results will be displayed either in ascending order (e.g. alphabetically or in numerically-increasing order) or in descending order (e.g. in reverse alphabetical order or in numerically-decreasing order), depending which button is selected.
‘Sort’ button	If you click on this button, the records will be sorted by the new criteria and the first page of the sorted results will be displayed.

Common functionality

Record Display


SEARCH HISTORY
SORT BY
Primary
Relevance
Ascending
Descending
Secondary
Publication Date
Ascending
Descending
Sort
1491459 records retrieved (estimated).
Select whole page | Select all results | Clear all selected records
View Selected Records
Jump to
Go
« < Page 1 of 149146 > »
1
Using mega-trend-diffusion and artificial samples in small data set learning for early flexible manufacturing system scheduling knowledge
Author(s): Li, D.-C. ; Wu, C.-S. (Dept. of Ind. & Inf. Manage., Nat. Cheng Kung Univ., Tainan, Taiwan) ; Tsai, T.-I.; Lina, Y.-S.
Document Type: Journal paper
Publication Year: 2007
2
Modeling and optimization III: Reaction rate estimation using artificial neural network (ANN) without a kinetic model
Author(s): Boyaci, I.H. ; Bas, D.; Dudak, F.C. (Dept. of Food Eng., Hacettepe Univ., Ankara, Turkey)
Document Type: Journal paper
Publication Year: 2007
3
Fast similarity join for multi-dimensional data
Author(s): Kalashnikov, D.V. (Dept. of Comput. Sci., Univ. of California, Irvine, CA, USA) ; Prabhakar, S.
Document Type: Journal paper
Publication Year: 2007

This function is used on the Search Results, Selected Records, Current Record and My Records/My Folders pages.

Field	Function
Search History	
Note: Any Search History records which are older than the maximum permitted period will be deleted automatically once that period has expired.	
'SEARCH HISTORY +/-' toggle	Click on the '-' to display your search history. Click on the'+' to hide the search history.
'Search criteria +/-' toggles	Click on the '+' to display the full details of the search criteria for this search. Click on the'-' to display only the first line of the search criteria.
Search criteria	If you click on any of the criteria, you will be taken to the appropriate search page with the selected search options populated.
Number of results returned by last search	Displays an estimation of the number of results returned the last time you ran the search.
Search Results page 'Select record' options	
'Select whole page' tick box	Tick this box to select all the records on the page. Un-tick the box if you wish to select individual records.
'Select all on page'	If you click on this option, all the records on the page will be selected.

Field	Function
‘Select all results’	If you click on this option, all search result records will be selected (including those that are not displayed on the current page).
‘Clear ALL selected results’	If you click on this option, a dialogue page will ask you to confirm that you want to clear all selected results. If you click ‘Yes’, all selected records will be unselected.
‘View selected records’	If you click on this option, the Selected Records page will be displayed.
‘Select record’ tick boxes	Tick one of these boxes to select the corresponding record. Un-tick the box to unselect the record.

Selected Records page list options

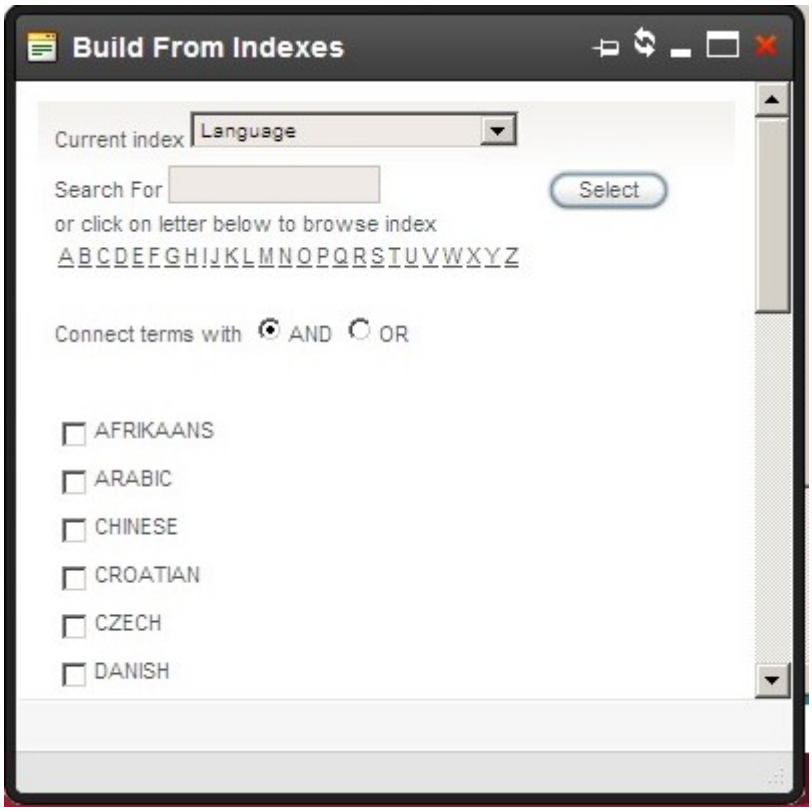
‘De-select all on page’	If you click on this option, you will be asked to confirm that you want to clear all the selected results shown on the page. If you click ‘Yes’, all check-boxes on the page will be un-ticked.
‘De-select all records’	If you click on this option, you will be asked to confirm that you want to clear all selected results. If you click ‘Yes’, all of the check-boxes for all records will be un-ticked.
‘Refresh List’ button	If you click on this button, the page will be re-displayed with all the de-selected (un-ticked) records removed.
‘Return to Search Results’ button	If you click on this button, you will return to the Search Results page.

Record Display

Sequence number	Each record is given a sequence number and they are displayed in numerical order.
Record contents	A number of the fields are hyperlinked. See the List of Fields section for details of the fields which will be hyperlinked and what happens when you click on the hyperlink. In addition to the hyperlinks identified in the List of Fields section, there is a ‘Full text’ link. If you click on this, a new browser window will be opened for the appropriate Web site to display the full-text document relating to the corresponding Inspec record.

Note: if a record has more than three authors, and the record display format is either ‘Headline’ or ‘Brief’, then only the first three names will be displayed, followed by ‘et al.’.

Index Browsing



See the List of Fields section for details of the fields for which index browsing is available.

This functionality is accessed when you click on the 'Index Browser' button on the Advanced Search page or the 'Build from Indexes' button on the Expert Search page. When the button is pressed, the following pop-up box is displayed:

Field	Function
Current index	If entering from the Advanced Search page, the index corresponding to the field selected will be displayed. You will not be able to amend it. If entering from the Expert Search page, there will be a drop-down list of the indexes which can be browsed, defaulting to the first alphabetically. Click on the drop-down button and then click on the index required.
'Search For' text box	If entering from the Advanced Search page, the appropriate text box entry corresponding to the field selected will be displayed. If entering from the Expert Search page, the text box will be blank. You can then amend the entry as required.
'or click on letter below to browse index'	If you click on one of the letters (A, B, C, … Z), the entry in the Search for text box will change to the appropriate letter with the appropriate index results listed below.
'Connect terms with' radio buttons	Click on 'AND' to combine the terms you select from the index with Boolean 'AND'. Click on 'OR' to combine the terms with Boolean 'OR'.

Field	Function
Previous	If you click on this hyperlink, the previous page of information will be displayed. If there is no previous page to display, this hyperlink will be hidden/greyed out.
Next	If you click on this hyperlink, the next page of information will be displayed. If there is no next page to display, this hyperlink will be hidden/greyed out.
List of index entries, each with a tick box	For the index selected, entries starting with the text in the 'Search For' text box are displayed in alphanumeric sort order. If you tick the tick box against a particular entry, the appropriate details will be replicated in the search page you came from: • Advanced Search page. If this is the first entry selected for the index browsing, any existing entry will be overwritten with the selected entry in quotes (" "). Otherwise the indicated logic connector AND/OR will be added in front of the selected entry details (the text box will be expanded if necessary). • Expert Search page. If the 'Search For' text box is empty, the selected entry will be entered in quotes (" "), followed by a colon and the index identifier, e.g. "Einstein, A.":AU. Otherwise the indicated logic connector AND/OR will be added in front of the selected entry details.

'Save Search' button

This button can be accessed from several pages:

- Advanced Search and Expert Search pages
- Search Results, Selected Records, Current Record and Refine Results pages
- My Searches page

When you click on this button, if you are not already logged on, you will be asked to log on.

If you already have the maximum number of saved searches, a page is displayed identifying how many saved searches you already have, the maximum allowed and informing you that you will not be able to save another search until you have deleted some of your saved searches.

- If you are logged on, a dialogue page will be displayed entitled 'Save Search'.
- If the search was created from a saved search, the name of the original search will be displayed in the 'Search name' text box. Otherwise, the text will say 'Search 1' (or 'Search 2' etc. if the name has already been used). The field is highlighted and you will be able to type into it to change it to a search name of your choice.
- 'Alert frequency' drop-down list. Click on this to change how often you wish to be alerted with new search results, e.g. weekly, monthly.
- Confirm button. If you click on the confirm button and the search name is already in use, a prompt will say 'Do you want to overwrite the existing search?' If you click 'Yes', the existing search will be overwritten and a dialogue page is displayed confirming that the search has been added and with a button which you can click to return to the original page. If you click 'No', you will be returned to the previous prompt allowing you to change the search name.
- Cancel button. If the cancel button is clicked, you will be returned to the original page.

Search Aid Summary functionality

The following are displayed in a box headed ‘Terms selected’:

Field	Function
‘Thesaurus term(s)’	Lists all the thesaurus terms selected, including any narrower terms linked by ‘OR’ logic connectors.
‘Classification(s)’	Lists all the classifications selected with ‘OR’ logic connectors. If a higher-level classification is selected, it is sufficient to list the higher-level classification followed by a wildcard, but not its lower-level classifications.
‘Journal(s)’	Lists all the journals selected with ‘OR’ logic connectors.
‘Go to Search’ button	If you click on this button, your preferred search page is displayed with the selected thesaurus terms, classifications and journals pre-populated into the appropriate fields. If, for example, you select several thesaurus terms and go to the Advanced Search page, a single search-criteria row will be displayed for thesaurus terms. The thesaurus terms will be in a single text box and separated by Boolean ORs.
‘Clear’ button	If you click on this button, all your selected thesaurus terms/classifications/journals will be removed.

Save to Folder functionality

This functionality is available on the Search Results, Selected Records, Current Record, My Folders and My Current Record pages. You can access this functionality by clicking on the ‘Save to Folder’ icon.

The list of the record(s) to be saved will depend on which page the function is accessed from:

Access page	Records listed
Search Results page	All selected records from the search results
Selected Records page	All selected records
Current Record page	One record only
My Folders page	One record only
My Current Record page	One record only

If you are not logged on, a message will be displayed saying that you need to be logged on/register in order to save records to a folder.

If the number of record(s) to be saved, when added to the number you have already saved, is greater than the maximum permitted (1000 records), a dialogue page will be displayed saying that you have exceeded the maximum allowed.

If you are logged on, a dialogue page will be displayed giving a list of the folders you have created. If the number of folders is fewer than the maximum allowed, you will be given an option to create a new folder with a text box for you to enter the new folder name (the default name is 'Folder 1' (or 'Folder 2' etc. if 'Folder 1'is already in use). You will then be asked to select the folder to which you want the record added. If you click on a folder, the record(s) will be added to the folder selected. If you click to create a new folder, the new folder will be created with the specified name and the records(s) will be added to the folder. Finally, the number of record(s) added will be displayed for confirmation.

Download Records functionality

This functionality is available on the Search Results, Selected Records, Current Record, My Folders and My Current Record pages. You can access this functionality by clicking on the 'Download' icon.

The list of record(s) to be downloaded will depend on which page the function is accessed from:

Access page	**Records listed**
Search Results page	All selected records from the search results
Selected Records page	All selected records
Current Record page	One record only
My Folders page	All records in the folder
My Current Record page	One record only

If the number of record(s) to be downloaded is more than the maximum allowed (1000 records), a dialogue page will identify this.

If the limit is not exceeded, a dialogue page will be displayed, consisting of:

- A 'File download format' drop-down list. The formats available are:
    - Text
    - PDF
    - RIS
    - RefWorks
    - BibText
- If you select 'PDF' or 'Text' from the file download format, you will also be asked to select from a record format drop-down list ('Headline', 'Brief', 'Abstract' or 'Extended'). If you select a different file download format, this option will be greyed out/not displayed
- The above fields default to your preferences if you are logged on or the new account default if you are not
- A 'Download' button. When you click on this button, you will be presented with the 'Download file' dialogue asking you where you want to download the file to, etc.

Print Records functionality

This functionality is available on the Search Results, Selected Records, Current Record, My Folders and My Current Record pages. You can access this functionality by clicking on the ‘Print’ icon.

The list of record(s) to be printed will depend on which page the function is accessed from:

Access page	Records listed
Search Results page	All selected records from the search results
Selected Records page	All selected records
Current Record page	One record only
My Folders page	All records in the folder
My Current Record page	One record only

If the number of record(s) to be printed is more than the maximum allowed (1000 records), a dialogue page will identify this.

You will be presented with a dialogue page with a drop-down list showing the record format options (‘Headline’, ‘Brief’, ‘Abstract’ and ‘Extended’). You should select the format you require.

When you click on the ‘Print’ button, you will be presented with a ‘Print file’ dialogue asking you to identify which printer the records are to be printed to.

E-mail Records functionality

This functionality is available on the Search Results, Selected Records, Current Record, My Folders and My Current Record pages. You can access this functionality by clicking on the ‘Email’ icon.

The list of record(s) to be e-mailed will depend on which page the function is accessed from:

Access page	Records listed
Search Results page	All selected records from the search results
Selected Records page	All selected records
Current Record page	One record only
My Folders page	All records in the folder
My Current Record page	One record only

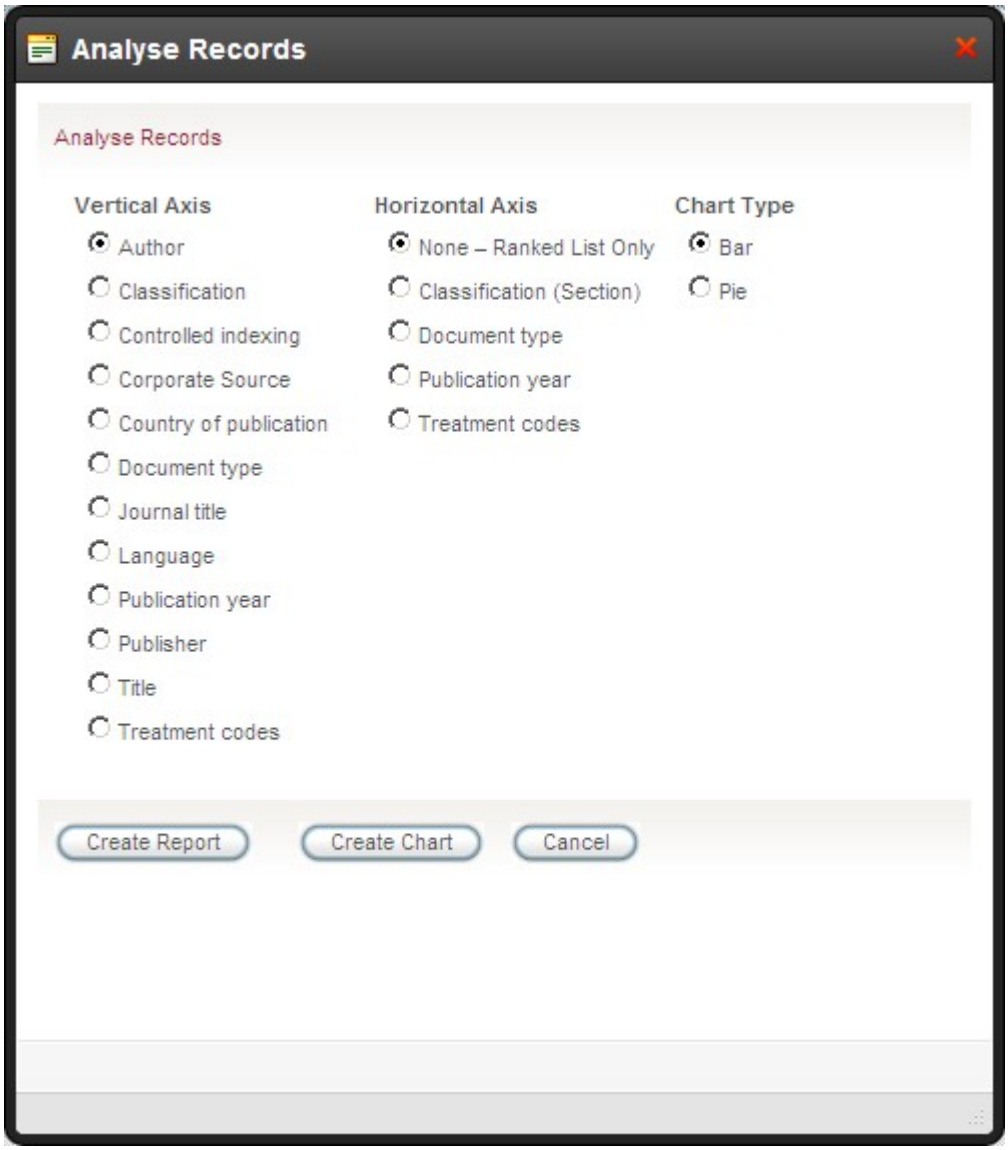
If the number of record(s) to be e-mailed is more than the maximum allowed (100 records), a dialogue page will identify this.

If the number of record(s) to be e-mailed is not more than the maximum allowed, a dialogue page will be displayed consisting of:

- A drop-down list with the record format options ('Headline', 'Brief', 'Abstract' and 'Extended')
- Your e-mail address. You can overtype/amend this as required
- A 'Subject' text entry box. Type the subject of the e-mail here
- An 'Introduction text' entry box. You may type some explanatory text here
- A 'Send email' button. Click on this when you are ready to send the e-mail

When the e-mail is sent, your name and e-mail address (from your personalization data) will be added as a signature.

Analyse Records functionality



This functionality is available on the Search Results, Selected Records, Current Record, My Folders and My Current Record pages. You can access this functionality by clicking on the 'Analyse' icon.

The list of record(s) to be analysed will depend on which page the function is accessed from:

Access page	Records listed
Search Results page	All selected records from the search results or, if you have not selected any of the records, all the search results
Selected Records page	All selected records
Current Record page	One record only
My Folders page	All records in the folder
My Current Record page	One record only

A dialogue page is displayed with the following information:

- Vertical Axis. A drop-down list of options. You should select the appropriate option for the fields required for the vertical axis. See the List of Fields section for details of the fields listed
- Horizontal Axis. A drop-down list of five options:
    - 'None – Ranked List Only'
    - 'Classification (Section)'
    - 'Document Type'
    - 'Publication Year'
    - 'Treatment Codes'

  You should select the option that you require for the horizontal axis.
- A 'Create Report' button. If you click on this button, the next dialogue page will be displayed. This consists of:
    - The first page of analysis results, together with an indication that the full details are available in a CSV (comma-separated value) file which can be downloaded
    - A 'Download CSV file' button. If you click on this button, a report is generated in CSV format and you will be presented with the option to download the CSV file to your computer
    - A 'New Report' button. If you click on this button, the previous dialogue page is displayed so that you can create another report

Logon functionality

This functionality is accessed when you are not logged on and will allow you to either log on, create a new account or request a password reminder.

A dialogue page is displayed with the options to:

- Log on, entering a User Name, password and, optionally, ticking a 'Remember Me' tick box
- Request a password reminder
- Request a User Name reminder
- Create a new account

If you enter a User Name and password:

- If the entered details are valid, the system will log you on and then return to the original page.
- If the account has been disabled, a dialogue page will be displayed indicating that the account has been disabled. If they want it to be re-activated, you must contact the IET.
- If the account is not linked to an active individual subscription, there are no active IP-controlled site subscriptions associated with your IP address and the account is not linked to an active non-IP controlled site subscription, then you will need to subscribe/re-subscribe before you can access the system. A dialogue page will be displayed with a message explaining this, and then the Subscription page will be displayed. This page allows you to subscribe or re-subscribe, as appropriate.
- If there is an error in the details entered, an error message is displayed.
- If you successfully log on, but there is no Inspec Direct account associated with your IET Logon, a dialogue page will be displayed identifying this together with a 'Create new account' button. If you click on it, a new account will be created (see below for the process), starting from the step immediately after the entry of your personal information (which is already available in this case).

If you request a password reminder:

- A dialogue page will be displayed allowing you to enter either your User Name or your e-mail address and requesting that a password reminder be sent to your registered e-mail address
- Once you have requested an e-mail, you will return to the previous dialogue page to allow you to log on

If you request a User Name reminder:

- A dialogue page will be displayed allowing you to enter either your User Name or your e-mail address and requesting that a User Name reminder be sent to your registered e-mail address
- Once you have requested an e-mail, you will return to the previous dialogue page to allow you to log on

If you click to create a new account:

- A dialogue page will be displayed asking you if you already have an IET account
- If you indicate that you do have an IET account, a dialogue page will be displayed prompting you to enter your User Name and password and the details will be validated
- If you indicate that they do not have an IET account, a dialogue page will be displayed prompting you to enter the following:
    - User Name
    - Password
    - Confirm password
    - Title
    - Other title
    - Forenames
    - Surname
    - E-mail address
    - Confirm e-mail address
    - E-mail preferences (i.e. can the IET contact you by e-mail?)
    - E-mail format (HTML or text)
    - Country

- You will then be asked to click on the ‘Create new account’ button. The details entered will be validated before proceeding. Following this initial data entry, you will need to contact the IET if you wish to make any changes to your title, other title, forename or surname details
- If your IP address is not linked to an active IP-controlled site, a dialogue page will be displayed giving you the option to:
    - either click a button to purchase a subscription (if you click on this button, you will be prompted to enter your home address)
    - or enter an Authorisation code if you have one. If you enter a code, it will be validated and a check will be made that the code is not currently in use
- An Inspec Direct account will then be created. If you are buying an individual subscription through WorldPay, this will be created before going to WorldPay. This new account may be:
    - Linked to an existing IET account (for this, you will need to create a new IET account if you do not already have one)
    - Linked to an active IP-controlled site subscription (for this, your IP address needs to be linked to an active site subscription)
    - Linked to an active non-IP controlled site subscription (for this, you will need to have entered an available authorisation code for an active non-IP controlled site)
    - Linked to a newly taken-out individual subscription
- A dialogue page will then be displayed to:
    - Confirm that the account has been set up
    - Provide help regarding which functions are now available to you (viz. saving searches, saving records to folders, amending your user preferences)
    - Provide help which indicates that you will need to contact the IET to make any changes to your title, other title, forename or surname details
    - Inform you that you can view and change your details by clicking on the ‘My Inspec’ tab
- You will then be asked to click on a ‘Continue’ button
- An e-mail will then be sent to your e-mail account confirming that the account has been set up.

Forgotten Password functionality

This functionality is accessed by clicking on a ‘Forgotten Password’ button:

If you click on the button, a page is displayed asking you to enter either your User Name or your e-mail address. If the entered details are valid:

- A password reminder will be sent to your e-mail address
- A message will be displayed indicating that an e-mail has been sent to your e-mail address
- A ‘Logon’ button will be displayed. If you click on this button, the Logon screen will be displayed

If the entered details are not valid, an error message is displayed on the page.

Subscribe/Re-subscribe functionality

This is accessed from two pages:

- One of the dialogue pages displayed when a new account is being created (new subscriptions only)
- The Subscription page (for both new subscriptions and re-subscriptions)

The following information needs to be provided:

- User Name
- Subscription ID (if it is a re-subscription)
- Requested subscription period (24 hours or 1 year)

A dialogue page is displayed with the following information:

- User Name
- Subscription ID (only if supplied)
- Requested subscription period
- 'Upgrade to a 1 year subscription' button (only displayed if a 24-hour subscription has been requested). If the button is clicked, the requested subscription period is change to '1 year' and a '24-hour subscription' button is displayed in its place.
- Start date/time and time zone (only displayed if it is a subscription which has not yet expired, in which case it is the end date and time for the existing subscription).
- Database selection list (only displayed if it is a new subscription). This consists of:
    - A list of the available database subsets which a user can subscribe to
    - The appropriate price for the subscription. Note that the price will vary depending on which country you are based in and if you are an IET member
    - A tick box against each entry to allow you to select the database subset(s) you require
    - If you select 'Complete Inspec Database', any other selections will be ignored
- Re-subscription database selection (only displayed for a re-subscription):
    - A list of the requested databases
    - An 'Amend database selection' button. If you click on this button, the Database selection list (see above) will be displayed with the appropriate database subsets already ticked
- The overall subscription cost is displayed. This will be updated as you tick and un-tick database subsets
- A 'Proceed to payment' button. If you click on this button, you will proceed to the next dialogue page.

The next dialogue page will prompt you to enter the following information:

- Your home address. If these details are already available then they will be displayed
- The billing address. You only need to enter this if it is different from the home address. Again, if the details are already available then they will be displayed
- Credit card holder's address. You only need to enter this if it is different from either the home address or the billing address. If it is the same as the home address, you should click on the 'Same as home address' radio button. If it is the same as the billing address, you should click on the 'Same as billing address' radio button. Again, if the details are already available then they will be displayed
- If you click on the 'Purchase subscription' button and all the addresses have been specified, the appropriate details are passed on to WorldPay to collect payment

If WorldPay indicates that there is a problem with the transaction, a dialogue page will be displayed prompting you to try again or contact the IET if necessary.

When you have completed the purchase, a dialogue page will be displayed confirming that the payment has been processed and that your account has been set up. A button labelled

‘Continue’ will be displayed and, once it is clicked, you will be returned to the page you came from.

Alert Generation functionality

If you have not logged on to the system for the maximum number of days permitted, any alerts you own will be deactivated by changing the alert frequency to ‘No Alert’. If, in addition, you have not yet been sent an e-mail telling you that the alerts will be deactivated unless you log on to the system within the appropriate number of days, then such an e-mail will be sent to you. The e-mail will also tell you how many days are left before the alert is to be deactivated.

For each of the alerts (i.e. those whose frequency is not set to ‘No Alert’):

- The Inspec Database will be searched based on the search criteria set (including any ‘Search by’, ‘Limit by’ and ‘Sort by’ parameters
- If the system indicates that you do not have access to any part of the Inspec Database, the alert will be deactivated by changing the alert frequency to ‘No Alert’
- If one or more search records is returned, the search results will be e-mailed to the appropriate e-mail address(es). If there are more results than the maximum permitted, the e-mail will indicate that there are additional search results
- If there are no search records returned but you have indicated that you want to receive e-mails even when there are no new records, then you will be sent an e-mail with zero records

Search Fields

List of Fields

The following is a list of all the search fields available, together with:

- Search Code. This is the two-character code that must be used when referring to the field on the Expert Search page.

  Note:

  1. The data corresponding to the RN search code consists of data from the Report number field, but it also contains data from the Contract number and U.S. Government Clearing House number fields. Only the Report number appears in the search code drop-down list
  2. The data corresponding to the PN search code consists of data from the Patent number field, but it also contains data from the Original patent application number field. Only the Patent number appears in the search code drop-down list
  3. The data corresponding to the PC search code consists of data from the Country of patent field, but it also contains data from the Country of original patent application. Only the Country of patent appears in the search code drop-down list
  4. The data corresponding to the UR search code consists of data from the URL field, but it also contains data from the Document collection URL field. Only the URL appears in the search code drop-down list
- Index Composition. If the field is a composite field, composed of data from more than one field, this column shows the Search Codes for the constituent fields
- Index Browsing. ‘Yes’ means that the field/index can be browsed on the Advanced Search and Expert Search pages
- Refine Results. ‘Yes’ means that the field appears on the Refine Results page
- Hyperlinked:
  - ‘Search’ means that the field’s data will be hyperlinked when it is displayed on the Search Results, Selected Records, Current Record and My Current Records pages. If you click on the hyperlink, it initiates a new search for all records with an exact value

match to the field value, which is performed using the Search type for the previous search performed, using the default 'Limit By' and 'Sort By' options for a new user
    - 'Display' (for Article Title) means that the entire record will be displayed on the Current Record page
- Results Analysis. 'Yes' means that the field is available for selection on the Analyse Records page

Field's Display Name	Search Code	Index Composition	Index Browsing	Refine Results	Hyper-linked	Results Analysis
Abstract	AB					
Accession number	AN					
Affiliation	AF			Yes	Search	
Affiliation country	AC					
Article title	TI				Display	
Astronomical object indexing	AO		Yes		Search	
Author	AU		Yes	Yes	Search	Yes
Basic index	BI	AB, CT, TI & UT				
Book title	BT				Search	
Chemical indexing	CI					
Classification	CC			Yes	Search	Yes
CODEN	CO					
Conference country	MC					
Conference dates	MD					
Conference location	ML		Yes			
Conference sponsor	SP		Yes			
Conference title	MT				Search	
Conference year	MY					
Contract number	RN					
Controlled indexing	CT			Yes	Search	Yes
Corporate source	CS	AF, IO & AS	Yes			Yes
Country of original patent application	PC					
Country of patent	PC					
Country of publication	CP		Yes	Yes		Yes
Date filed or submitted	SD					
Document collection URL	UR					
Document type	DN		Yes	Yes		Yes
Document type code	DT					

Field's Display Name	Search Code	Index Composition	Index Browsing	Refine Results	Hyper-linked	Results Analysis
DOI	DO					
Editor	ED				Search	
IPC Codes	IP		Yes		Search	
ISBN	BN					
ISSN	IS					
Issue number	IN					
Issuing organisation	IO				Search	
Journal title	JT		Yes		Search	Yes
Language	LA		Yes	Yes		Yes
Material Identification Number	MN					
Original patent application number	PN					
Page numbers	PG					
Patent assignee	AS				Search	
Patent data	PA	PN, AS & PC				
Patent number	PN					
Primary classification	FC					
Publication date	PD					
Publication title	HT	BT, RT & MT				
Publication year	PY			Yes		Yes
Publisher	PU		Yes	Yes	Search	Yes
Report number	RN					
Report title	RT				Search	
SICI	SI					
Subfile	SF			Yes		
Treatment codes	TC			Yes		Yes
U.S. Government Clearing House number	RN					
Uncontrolled indexing	UT		Yes			
Update	UD					
URL	UR					
Volume	VO					

Field Definitions

The fields which can be searched in the Inspec Database are as follows:

Abstract (AB) - Words contained in the abstract (a summary of the article).

Accession Number (AN) - The number denoting the order in which records have been added to the Inspec Database, starting with number 1 in 1969.
For the Inspec Archive (1898-1968), the format is yyyySaaaaa (e.g. 1954B00459), where:

- yyyy is the year in which the abstract was originally printed in "Science Abstracts"
- S is the Science Abstracts section (A for Physics, B for Electrical Engineering, C for Control)
- aaaaa is the Abstract number in "Science Abstracts"

Affiliation (AF) - The name of the organisation to which the author is affiliated. Abbreviations and acronyms are often used, so it is advisable to use truncation, e.g. "Bell Lab*". This field can be used in combination with the "Affiliation Country (AC)" field.

Affiliation Country (AC) - The country in which the author's affiliation is located. This field can be used in combination with the "Affiliation (AF)" field.

Article Title (TI) - The title of an article from a journal, conference, book or section of a report which has been abstracted by Inspec.

Astronomical Object Indexing (AO) - Controlled designations for astronomical objects discussed in the document.

Author (AU) - The name of an author of an article. The format is surname followed by initials: e.g. Smith, T., Jr. (however, see the Chinese Author and Editor Names section for hints on Chinese names, etc.). See also "Editor (ED)" below.

Basic Index (**BI) -** The default field for searching, which contains all the words in the Article Title (TI), Abstract (AB), Controlled Indexing (CT) and Uncontrolled Indexing (UT) fields.

Book Title (BT) - The title of a book which has been abstracted by Inspec.

Chemical Indexing (CI) - A controlled indexing system for inorganic substance and material systems.

Classification (CC) - A coding method, first used to arrange the entries in subject order in the printed publications, which is useful for limiting a search to a specific subject area. A number of classification codes may have been assigned to a record. This field can be used in combination with the "Primary Classification (FC)" field.

CODEN (CO) - The CODEN for a journal. This is a unique alphanumeric code assigned to titles of serial publications

Conference Country (MC) - The country where a conference was held. This field can be used in combination with the "Conference Location (ML)" field.

Conference Dates (MD) - The dates on which a conference took place. The format is "ddmmyyyy", e.g. "15092006" means "15th September 2006". Where a range is specified, you can search on any date in the range, e.g. a conference that took place between the 11th and the 13th July 2000 will have index entries for 11072000, 12072000 and 13072000. This field can be used in combination with the "Conference Year (MY)" field.

Conference Location (ML) - The location where a conference was held. e.g. “Palo Alto, CA”. This field can be used in combination with the “Conference Country (MC)” field.

Conference Sponsor (SP) - The organisation(s) that sponsored a conference. Abbreviations and acronyms are often used, so it is advisable to use truncation e.g. Office Naval Res*

Conference Title (MT) - The title of a conference which has been abstracted by Inspec.

Conference Year (MY) - The year in which a conference took place. This field can be used in combination with the “Conference Dates (MD)” field.

Contract Number (RN) - The contract number assigned to a report by the issuing organisation. This field is automatically searched in combination with the “Report Number (RN)” and “U.S. Government Clearing House Number” fields.

Controlled Indexing (CT) – Any of the 9,400 index terms from the Inspec Thesaurus, with each record having at least one term (and usually several) assigned to it.

Corporate Source (CS) – The name of an organisation. This includes author Affiliations (AF), report Issuing Organisations (IO) and Patent Assignees (AS), but it does not include Conference Sponsors (SP).

Country of Original Patent Application (PC) - The country where a patent was applied for. This field is automatically searched in combination with the “Country of Patent (PC)” field.

Country of Patent (PC) - The country where a patent was issued. This field is automatically searched in combination with the “Country of Original Patent Application (PC)” field.

Country of Publication (CP) - The country where the abstracted item was published.

Date Filed or Submitted (SD) - The date on which a patent was filed or on which a dissertation was submitted.

Document Collection URL (UR) - The URL (Uniform Resource Locator) or Web address of the electronic version of the journal. This field only contains data where there is no available “DOI (DO)” data. It is automatically searched in combination with the “URL (UR)” field.

Document Type (**DN)** - The type of document in which the abstracted item, is published, e.g. journal paper. See the Document Type Codes section for a list of these codes. This field can be used instead of the “Document Type Code (DT)” field.

Document Type Code (**DT)** - A two-digit code corresponding to the type of document in which the abstracted item, is published. See the Document Type Codes section for a list of these codes. This field can be used instead of the “Document Type (DN)” field.

DOI (**DO)** - Indicates the DOI (Digital Object Identifier) handle that can be used to retrieve the full-text version of the item at the DOI Handle Proxy (http://dx.doi.org/)

Editor (ED) - An Editor or translator of a book or monograph. The format is surname followed by initials: e.g. Smith, T., Jr. (however, see the Chinese Author and Editor Names section for hints on Chinese names, etc.). See also “Author (AU)” above.

IPC Codes (IP) – International Patent Classification codes, generated from Inspec Classification Codes (CC).

ISBN (BN) – The International Standard Book Number of a book which has been abstracted by Inspec. Your search should include spaces (e.g. "90 386 1873 5" rather than "9038618735").

ISSN (IS) – The International Standard Serial Number of a journal.

Issue Number (IN) - The issue number within a particular volume of a journal. This field can be used in combination with the “Volume (VO)” field.

Issuing Organisation (IO) - The name of the organisation that issued a report, standard or dissertation.

Journal Title (JT) – The full journal name.

Language (LA) - The language in which the article was written.

Material Identification Number (MN) - This is an internal housekeeping field.

Numerical Data Indexing - Indexing that standardizes the format of numerical data. For information about individual indexes, see the Inspec Numerical Indexing Thesaurus section.

Original Patent Application Number (PN) - The application number given to a patent when it was first applied for. This field is automatically searched in combination with the “Patent Number (PN)” field.

Page Numbers (PG) - The full pagination of an article (e.g. “35-41”) or the number of pages in the article where the full pagination is not available (e.g. “7 pp.”).

Patent Assignee (AS) - The owner of a patent (either an individual or an organisation).

Patent Data (PA) - This field can be used to search the following fields in combination: Original Patent Application Number (PN), Patent Number (PN), Patent Assignee (AS), Country of Original Patent Application (PC) and Country of Patent (PC).

Patent Number (PN) - The number given to a patent when it is finally granted. This field is automatically searched in combination with the “Original Patent Application Number (PN)” field.

Primary Classification (FC) - The “first-place” or most important of the classification codes assigned to a record. This field can be used in combination with the “Classification (CC)” field.

Publication Date (PD) - The date on which an article was published. The format is “ddmmyyyy”, e.g. “15092006” means “15th September 2006”. To find articles published in May 2004, search for “*052004 <in> PD”. This field can be used in combination with the “Publication Year (PY)” field.

Publication Title (HT) - The title of a non-journal publication. This includes Book Titles (BT), Report Titles (RT) and Conference Titles (MT), but it does not include Journal Titles (JT).

Publication Year (PY) - The year in which an article was published. This field can be used in combination with the “Publication Date (PD)” field.

Publisher (PU) - The name of the publisher of a book, dissertation, standard or conference proceedings.

Report No (RN) - The report number assigned to a report by the issuing organisation. This field is automatically searched in combination with the “Contract Number (RN)” and “U.S. Government Clearing House Number” fields

Report Title (RT) - The title of a report which has been abstracted by Inspec.

SICI (SI) - The Serial Item and Contribution Identifier is a numeric notation to identify serial issues and articles uniquely regardless of their distribution medium (paper, electronic, microform).

Subfile (SF) - One of the five sections of the Inspec Database. See the Classification Sections section for a list of the Database sections.

Treatment Codes (TC) - Particular aspects of the subject which are dealt within a document, e.g. experimental. Treatment codes are especially useful where a search has produced a large number of documents on the required subject. Treatment codes offer a means of selecting those records which are most relevant. A document may have more than one treatment code. See the Treatment Codes section for a list of these codes.

U.S. Government Clearing House Number (RN) - The number assigned to a report by the U.S. Government Clearing House. This field is automatically searched in combination with the "Contract Number (RN)" and "Report Number" fields

Uncontrolled Indexing (UT) - Significant words and phrases freely chosen by Inspec's subject specialists which describe the subject content of an article.

Update (UD) - The weekly update number that is given to the set of records which is added to the Inspec Database each week. The search format is "yyyywww", e.g. "2006038" means "the Week-38 update of 2006". (However, the display format is "yyyy-www").

URL (UR) - The URL (Uniform Resource Locator) or Web address of the full-text version of the article. This field only contains data where there is no available "DOI (DO)" data. It is automatically searched in combination with the "Document Collection URL (UR)" field.

Volume (VO) - The volume of a journal. This field can be used in combination with the "Issue Number (IN)" field.

Document Type Codes

The following codes can be used when searching on the Expert Search page (the search code for the numerical Document Type Code is 'DT', while the search code for the Document Type text is 'DN'):

Code	Document type
10	Dissertation
11	Report
12	Report Section
21	Journal Paper
22	Journal Paper (Original Abstracted)
23	Journal Paper (Translation Abstracted)
30	Book
40	Book Chapter
50	Conference Proceedings
51	Conference Proceedings in Journal
52	Conference Proceedings in Journal (Original Abstracted)
53	Conference Proceedings in Journal (Translation Abstracted)
60	Conference Paper
61	Conference Paper in Journal
62	Conference Paper in Journal (Original Abstracted)
63	Conference Paper in Journal (Translation Abstracted)
70	Standard
80	Patent

Note: On the Advanced Search page, you can only select ONE document type from the 'LIMIT BY' drop-down list. If you wish to select more than one option, you will need to do this by selecting the appropriate field from the 'SEARCH INDEXES' drop-down boxes and entering the required options into the corresponding 'SEARCH FOR' text box. For example, select 'Document type' in a 'SEARCH INDEXES' drop-down box and type 'book OR journal' in the 'SEARCH FOR' text box.

Treatment Codes

The following codes can be used when searching:

Code	Treatment Type
A	Application (assigned when a document describes the actual technique, computer program or physical effect where some specific application is described or envisaged)
B	Bibliographic or literature survey (indicates documents containing a bibliography or significant number of references)
E	Economic aspects or market survey (applied where the document deals with some economic or commercial aspects, e.g. cost, pricing, market forecast, etc.)
G	General or review (this code distinguishes documents which give an overall view of a subject. It includes general approaches, overviews, state-of-the-art reviews and introductory articles)
N	New development (used where a claim of novelty, in the patent sense, might be made)
P	Practical (indicates that the document is meant to be of practical use, and so is likely to be of use to engineers and designers)
R	Product Review (applied to product comparisons, tables and buyers' guides). Note: Treatment code P is also assigned to all documents where treatment code R is applied
T	Theoretical or mathematical (assigned when the subject matter is generally of a theoretical or mathematical nature)
X	Experimental (used for documents describing an experimental method, observation or result. Includes apparatus for use in experimental work and calculations on experimental results)

Note: You should always search for the Treatment **Code** rather than the Treatment **Type**, e.g. "E" rather than "Economic". The search code for the Treatment Code on the Expert Search page is 'TC'.

Languages

The following languages are available on the 'Language' drop down list:

Afrikaans
Arabic
Armenian
Bengali
Bulgarian
Byelorussian
Chinese
Croatian
Czech
Danish
Dutch
English
Esperanto
Estonian

Finnish
Flemish
French
German
Greek
Hebrew
Hindi
Hungarian
Icelandic
Indonesian
Italian
Japanese
Korean
Latin
Latvian
Lithuanian
Macedonian
Malay
Norwegian
Persian
Polish
Portuguese
Romanian
Russian
Serbian
Slovak
Slovenian
Spanish
Swedish
Thai
Turkish
Ukrainian

Note that the drop-down list is displayed in the following order:

- 'All Languages'
- The seven commonest languages (English, Chinese, French, German, Japanese, Russian, Spanish)
- All the other languages in alphabetical order

Search Hints

Field content searching

IN operator

The field-content search operator (the IN operator) must always be contained within angle brackets (< >) so that the search system recognises it as the search operator. The IN operator is used for general text searches.

To search multiple fields, separate them with commas and enclose them in parentheses. For example, the following query expression searches both the title and the abstract for the word "bismuth":

bismuth <in> (TI, AB)

Searching without operators

Non-text (i.e. numerical and date) fields can be searched using "Search relations" (see the Search Relations section for more information). For example, you may search for:

PY = 1968

Search relations

Search relations expand the scope of a search term by specifying a range of values without having to enter each value individually. Search relations are most useful on numeric fields but may also be applied to textual fields. The following relations are available:

Relation	**Symbol**
Equals	=
Not equal to	!=
Less than	<
Greater than	>
Not greater than (less than or equal to)	<=
Not less than (greater than or equal to)	>=

Examples of search relations:

1. Search a year field for all records where the year is later than 1993:

PY>1993

2. Search a year field for all records where the year is between 1993 and 1995 (inclusive):

(PY>=1993) AND (PY<=1995)

Boolean operators

Boolean operators (AND, OR and NOT) are used to link search terms or fields. Depending on the operators used and the contents of the database, the number of search hits will be broadened or narrowed.

AND operator

The AND operator is used to narrow a search by including only the specified terms.

Example: COMPUTER AND NETWORK

Only records containing both COMPUTER and NETWORK within the fields searched will be retrieved.

OR operator

The OR operator is used to broaden a search by including additional terms.

Example: COMPUTER OR NETWORK

Only records containing either COMPUTER or NETWORK within the fields searched will be retrieved.

NOT operator

The NOT operator is used to narrow a search by excluding specific terms.

Example: COMPUTER NOT NETWORK

Only records containing COMPUTER but not NETWORK within the fields searched will be retrieved.

Complex searches

Boolean operators may be combined to produce more complex search queries.

For example, on the Expert Search page, to search for records containing the words COMPUTER or NETWORK in the Controlled Indexing and DATA but not INFORMATION in the Title, enter:

((COMPUTER OR NETWORK) <in> CT) AND ((DATA NOT INFORMATION) <in> TI)

To perform the same search on the Advanced Search page, enter:

COMPUTER OR NETWORK into the 'Controlled indexing' box, and
DATA NOT INFORMATION into the 'Title' box,

making sure that the Boolean operator drop-down list to the left of the 'Title' box is set to "AND".

Proximity operator NEAR

The proximity search operator (the NEAR operator) locates records in which the search terms are in close proximity within the same bibliographical record. This operator can be used to connect words or phrases within a search field but not between search fields.

Left and right angle brackets (< >) are used for designating the NEAR operator.

You can use the NEAR operator to locate records in which a field contains all of the search terms that are near to each other; the order of the terms does not have to match the order they were entered. The retrieved records will be sorted such that those in which the search terms are next to each other appear before those in which the search terms are further away from each other.

Example: COMPUTER <near> NETWORK

Only records with the terms COMPUTER and NETWORK near each other (in any order) within the same bibliographic field would be retrieved from this search.

In addition, you may append a number (in the range 1 to 1024) to the NEAR operator in order to broaden the proximity between words. "NEAR*n*" means "within *n* search-words of" (a search-word means any word that is searchable, i.e. any word other than a stop-word).

Example 1: COMPUTER <near1> NETWORK

NEAR1 means that the words COMPUTER and NETWORK must be adjacent to each other (or only have stop-words between them), in any order.

Example 2: COMPUTER <near3> NETWORK

NEAR3 means that the words COMPUTER and NETWORK must be within three words of each other, in any order.

Truncation and wild-cards

Truncation allows you to widen a search on a textual or name field by including truncation symbols (* or ?) in your search term. The * symbol is used to match any number of characters and the ? symbol is used to match a single character.

You can enter a term or phrase using the wild-card character (*) for right or left truncation.

You also can use the single-character wild-card (?) for searching, e.g. optimi?ation.

Examples of truncation:

1. Searching for variants of words, for example:

DEVELOP* to find Developing, Development, etc.

2. Left-hand truncation (or “pre-truncation”) is used to search for words that end with a stem, for example:

*OXIDE to find Dioxide, Hydroxide, Oxide, Peroxide, etc.

3. Searching for a word where a single character may vary, for example:

WOM?N to find Women or Woman

Note: Searching for WOMAN OR WOMEN will not retrieve the same number of records as a search for “WOM?N” if autostemming (see below) is on, because it will also retrieve records containing “woman’s”, “women’s”, “women-centric”, etc.

4. ‘Autostemming’ radio buttons. ‘Autostemming’ means that all your searches will be treated as if they had the truncation symbol '*' appended to them. For example, if this option is turned on and the user searches for COMPUTER then all text beginning with COMPUTER will be retrieved – COMPUTER COMPANY, COMPUTER AND MONITOR, COMPUTERIZED,etc. Click on one of the radio buttons to choose whether you would like this feature turned on or off.

Search term precedence

Search terms are processed from left to right.

When the search page contains a set of ‘Search For’ text boxes, the search terms are processed from left to right for each box and then the contents of the fields’ text boxes are combined from top to bottom.

Boolean, field-content and proximity operators have the following precedence (listed from highest to lowest):

- NOT
- AND
- OR
- IN
- NEAR

For example, the AND operator takes precedence over the OR operator. For this reason, the above ordering means that, in the following example:

RED OR BLUE AND GREEN

The BLUE AND GREEN are effectively bracketed together as RED OR (BLUE AND GREEN), i.e. the query is interpreted to mean “look for documents that contain ‘BLUE’ and ‘GREEN’, or documents that contain ‘RED’.

To ensure that the OR operator is interpreted first, use parentheses as follows:

(RED OR BLUE) AND GREEN

The appropriate use of parentheses in query expressions, especially complex ones, ensures that the query expression is interpreted as intended. In general, you should use parentheses if you are using more than one operator in your search query. For example, you should type:

(FRENCH <IN> LA) AND (A9260 <IN> CC)

rather than:

FRENCH <IN> LA AND A9260 <IN> CC

Search term nesting

Using parentheses, you may nest search terms to ensure they are evaluated in the order you require. For example, the search (GREEN OR RED) AND BLACK will first locate the records with GREEN or RED and then select those that contain BLACK, whereas the search GREEN OR (RED AND BLACK) will locate the records that contain both RED and BLACK and also include any records containing GREEN.

You may have more than one set of parentheses in a search. For example, (GREEN AND BLUE) OR (RED AND BLACK).

You may also nest sets of parentheses. For example, (GREEN AND (BLUE OR RED OR BLACK)) NOT YELLOW.

Exact phrase matches

You can perform a search that matches an exact phrase by using quotation marks (“ and ”).

Example: “COMPUTER NETWORKING”

Note that if you don’t put a word into quotation marks, the search engine matches it conceptually (for example, searching for **lovely** will match documents that contain **lovely, love, loved, loving** and so on).

There are some exceptions to this on certain search pages:

Quick Search page	There is no need to enter " " for exact phrase matches, since the search engine assumes that all searches entered on this page are for exact phrases.
Search Classification page	You will need to tick the ‘Search for exact word(s)/classification codes only’ tick box in order to search for exact phrase matches. Do not use double quotes.
Search Thesaurus page	You will need to tick the ‘Search for exact word(s)/classification codes only’ tick box in order to search for exact phrase matches. Do not use double quotes.
All other search pages	You will need to use double quotes (" ") in order to search for exact phrase matches.

Case-sensitive searching

Most searching is NOT case-sensitive, e.g. if you enter “diodes”, “Diodes” or “DIODES” into the search box, you will retrieve exactly the same set of records.

Stop-words

Not all words are directly searchable. These words, called “stop-words”, are deemed to be irrelevant for searching purposes because they occur too frequently in the English language. In order to save both space and time, these words are dropped at indexing time and then ignored at search time. However, phrases that include stop-words can be searched by enclosing the entire phrase in double quotes (see the section on Literal Searching). The following is a list of the Inspec Direct search engine’s stop-words:

ABOUT	AFTER	ALL	ALSO	AM	AN	AND
ANY	ARE	AS	AT	BE	BECAUSE	BEEN
BUT	BY	CAN	COULD	DID	DO	DONT
EACH	EVERY	FOR	FROM	GET	GETS	GIVE
GO	GOING	GOOD	GOT	HAD	HAS	HAVE
HE	HER	HERE	HIM	HIS	HOW	IF
IN	INTO	IS	ISNT	IT	ITS	MANY
MAY	ME	MORE	MOST	MY	NO	NOT
NOW	OF	ON	ONLY	OR	OTHER	OUR

OUT	SHE	SO	SOME	SUCH	THAN	THAT
THE	THEIR	THEM	THEN	THERE	THESE	THEY
THIS	TO	TOO	UP	VERY	WAS	WE
WENT	WERE	WHAT	WHEN	WHERE	WHICH	WHO
WHY	WILL	WITH	WOULD	YES	YOU	YOUR

Literal searching

In addition to their meaning within a record, some words also have a meaning in terms of searching, such as the word 'and', which is used as a Boolean operator. The word 'and' also occurs in some thesaurus terms, proper names, etc. There are also other common words that cannot be searched for directly, called stop-words.

To search for a phrase including the word 'and' you can either:

- browse the index display (where one is available), and select the phrase, or
- place the phrase you wish to search for in double quotes, e.g. **"town and country planning"**. Note that you must you must use 'normal' quotes (" ") rather than 'smart' quotes (“ ”), so be careful if you cut and paste text from a document that uses these.

American/British spellings and synonyms

The Inspec Direct search engine will automatically search for synonyms of any word that you type into the 'SEARCH FOR' text box. For example, '**colour TV**' will also retrieve '**color TV**' and vice versa.

Non-searchable characters

The following characters cannot be searched for, since they have special meaning to the Inspec Direct search engine:

& ~ ( ) [ ] { } < > * ? ! " ' @ \ |

This means that, for example, if you wish to search for documents containing “AT&T”, you will need to search for “AT T”, since the “&” is treated as a space.

The following characters are also treated as spaces, although they can be used in searches:

- / . , : ;

Thus, you can search for **10.1088/0950-7671/3/3/302 <in> DO**, for example.

Special characters

Some mathematical and Greek characters are displayed where a character exists in a Windows font. These characters are indexed by their names - e.g. type 'alpha' when searching for 'α'.

The following lists show all the special characters which are displayed in Inspec records and the ASCII character string by which they are indexed.

Greek characters

Displayed as	Retrieved by
α	alpha
β	beta
χ	chi
Δ	Delta
δ	delta
ε	epsilon
η	eta
Γ	Gamma
γ	gamma
ι	iota
κ	kappa
Λ	Lambda
λ	lambda
μ	mu
ν	nu
Ω	Omega
ω	omega
Φ	Phi
ϕ	phi
Π	Pi
π	pi
Ψ	Psi
ψ	psi
ρ	rho
Σ	Sigma
σ	sigma
ς	sigma
τ	tau
Θ	Theta
θ	theta
ϒ	Upsilon
υ	upsilon
Ξ	Xi
ξ	xi
ζ	zeta

Greek characters that look the same as Roman characters are retrieved by their Roman equivalents (e.g. omicron is retrieved by typing in **o**, Eta is retrieved by typing in **H**.

Mathematical and other symbols

Displayed as	Retrieved by
ℵ	aleph
&	and
∠	angle
→	arrow
←	arrow
©	copyright
†	dagger
∘	degrees
∇	del
‡	double dagger
↓	down arrow
∈	element
≅	equivalent
∃	exists
∀	for all
≡	identical
⇐	implied
⇒	implies
⇔	implies
∞	infinity
∫	integral
∩	intersection
∉	notin
⊄	not subset
n√	nth root
∥	parallel
∂	partial
⊥	perpendicular
h	planck
£	pounds
∝	proportional
□	square
√	square root
⊂	subset
⊆	subset
⊃	superset
⊇	superset
∪	union
↑	up arrow

Fractions

Displayed as	Retrieved by
1/16	1 16
⅛	1 8
3/16	3 16
¼	1 4
5/16	5 16
⅜	3 8
7/16	7 16
½	1 2
9/16	9 16
⅝	5 8
11/16	3 16
¾	3 4
13/16	13 16
⅞	7 8
15/16	15 16

European language characters

Displayed as	Retrieved by
å	a
Å	A
æ	ae
ç	c
Đ	D
ð	d
ñ	n
ø	oe
Ø	OE
ß	ss
þ	th

Accented characters are retrieved by typing the equivalent character without the accent (e.g. **é** is retrieved by typing **e**, **ü** is retrieved by typing **u**, etc.).

Chinese author and editor names

Chinese names are usually made up of three parts, e.g. Lee Chung Oh. It is not always clear which is the family name, so the names may be given in full, although some authors give their names in the Western form, e.g. Lee, C.-O.

Note: This may also apply (less frequently) to authors of other nationalities too, e.g. Korean and Vietnamese.

Corporate sources

Beware of being over-precise when selecting the name of an author's affiliation from the Index Browser, as this will not necessarily retrieve all the relevant papers. So, for example, searching for **Imperial Coll London UK** will retrieve only those papers indexed in exactly that format, where the individual department or laboratory is not provided. Instead, use one of the following strategies:

a) Searching for **Imperial Coll*** is quick but will also retrieve affiliations such as "Imperial Coll. of Technol., Jerusalem, Israel"
b) Pre-truncation. For example, searching for ***Imperial Coll London UK** will retrieve affiliations such as "Dept. of Elect. & Electron. Eng., Imperial Coll. London, UK"
c) Boolean searching. For example, searching for **Imperial Coll* AND UK** will retrieve additional affiliations such as "Imperial Coll. of Sci., Technol. & Med., London, UK"

Inspec Search Aids

The Inspec Search Aids comprise the Inspec Thesaurus, the Inspec Classification and the Inspec List of Journals.

Inspec Thesaurus

The Inspec Thesaurus is a subject key to the Inspec Database. Each Inspec record is indexed using descriptors from the Inspec Thesaurus. This vocabulary provides a powerful search aid and contains over 9,400 controlled terms and over 8,500 lead-ins.

Each of the Thesaurus terms is fully linked to its Narrow, Broad and Related Terms.

The Thesaurus can be used as an effective search tool, e.g. to:

- verify the coverage of a specific subject
- find related words and phrases
- find search terms to broaden or narrow the search
- identify the most specific term of a subject (each subject is indexed by the most specific (narrow) terms).

Thesaurus entries

A typical entry for a Thesaurus term shows its associated terms:

Thesaurus term:	**information networks**
Used for:	information highways
	information infrastructure
	JANET
Narrower term:	Internet
Broader term:	information services
	wide area networks
Top term:	computer applications
	digital systems
	distributed processing

	networks(circuits)
	telecommunication
Related term:	information resources
	internetworking
	intranets
	search engines
Class. code:	C5620W (Other computer networks)
	C7210N (Information networks)
	D2080 (Information services and database systems)
Date of intro:	January 1995
Prior term:	information services

where:

Used for:	Cross reference(s) showing synonyms and additional concepts for which the Thesaurus term is used.
Narrower term:	Thesaurus term(s) which are one step more specific than the term displayed (Inspec always uses the most specific term to index a document)
Broader term:	Thesaurus term(s) which are one step more general
Top term:	Broadest term in the hierarchical tree (some terms are in several trees and may have several Broader and/or Top terms).
Related term:	Associated term(s) with non-hierarchical relationships.
Class. code:	Classification Code(s) related to the Thesaurus term, but not necessarily directly equivalent.
Date of intro:	The date when this index term was introduced.
Prior term:	The term(s) used to index this subject prior to this date.

An example of a demoted entry (i.e. an entry that used to be a full thesaurus term at some time in the past):

Thesaurus term:	elastoresistance
Use:	piezoresistance
Scope note:	heading was preferred term between January 1974 and January 1993. Prior to 1974, "piezoresistance" was used.
Date of intro:	January 1974

where:

Use:	The current Thesaurus term that has replaced the demoted term
Scope note:	Clarifies the specific period when the term was in use.
Date of intro:	The date when this index term was first introduced.

Controlled Indexing terms – search tips

Saving time by using the Thesaurus Search Aid

If you are not sure of the relevant Controlled Indexing Term(s) to search for, you can select your thesaurus terms by clicking on the “Search Aids” tab on the Main Navigation Toolbar, typing in a word (or words) of interest, clicking on the “Search Thesaurus” button and choosing a relevant term form the displayed list. If you wish to search for this term, just click

on the “Select” button” and it will be added to the list of terms that you wish to search for at the bottom of the screen. You may also look at that term’s Broad, Narrow and Related Terms and select one of those instead if it appears to be more relevant.

If you then want to add further terms, go back to the “Search Thesaurus” page and type in further words to search for.

This method can be particularly useful when searching for long controlled terms such as:

- *atmospheric electromagnetic wave propagation* or
- *biological effects of laser radiation*

As well as avoiding typing errors or spelling mistakes, you will avoid getting zero hits as a result of not entering the precise controlled term.

Expanding your search

To increase your hits, include more specific or related terms as appropriate. For example, if you search for:

- *flat panel displays*

You may also want to consider:

- *liquid crystal displays*
- *gas-discharge displays*
- *electroluminescent displays*
- *LED displays*

Improving the search accuracy

You should always try to find the most specific term that is suitable for your search. For example, if you are interested in laser surgery, the appropriate terms to search for are:

- *laser applications to medicine (rather than laser applications) AND*
- *surgery (rather than patient treatment)*

Inspec's indexing practice is to use the most specific term appropriate to the subject of the document.

Inspec Classification

The Inspec Classification is a powerful search tool which will often enable you to improve your search strategy quickly and effectively. In particular, it will enable you to:

- familiarize yourself very quickly with the overall subject coverage by Inspec by browsing through the main A, B, C, D or E sections of the database;
- pinpoint your areas of interest by browsing through any of the subsections of the database (e.g. A20 Nuclear Physics; B60 Communications; C30 Control Technology; D40 Office Automation and Communications);
- identify classification codes of interest to you by searching for keywords within the Classification Titles

You may choose to browse the Classification scheme by homing in on your area of interest via sub-sections, or you may wish to search for keywords within Classification Titles, words used in the Classification record, or the Classification codes themselves.

The searchability and linking of the Classification and Thesaurus make them a valuable search tool, helping you to refine or expand your ideas to optimise your bibliographic searching.

The Inspec Classification was first developed to arrange the entries in subject order in the printed publications. The scheme contains nearly 3,500 classification codes which can be used as a valuable search tool to narrow your search to a small subset.

Classification Sections

The Inspec Classification is divided into five sections. Codes begin with A, B, C, D or E, where:

- A = Physics
- B = Electrical Engineering and Electronics
- C = Computers and Control
- D = Information Technology for Business
- E = Mechanical and Production Engineering

The A, B, C and E sections are of a purely scientific and technical nature which are of interest to scientists and engineers, whereas Section D covers more commercial and management aspects of applied technology.

The code format is typically: A6789J, where:

A (or B, C, D, E) = section of the database
6 = highest or most general level of classification
7 = second level of classification
89 = third level of classification
J = fourth or most specific level of classification (not all codes have the fourth level of classification)

At least one classification code is assigned for the main subject matter of each record, and additional codes may be assigned for subsidiary subjects. Codes are always assigned to the most specific level possible and can be assigned from one or more of the five sections of the database depending upon the subject matter.

Classification Codes

Classification Codes can be truncated at any level, e.g.:

B*	General topics
B7*	Instrumentation and special applications
B72*	Measurement equipment and instrumentation
B7230*	Sensing devices and transducers

In ‘SEARCH FOR’ boxes on search pages, the codes can be linked by Boolean logic operators with other classification codes or with Classification Titles (see below).

Classification Titles

The classification titles are subject descriptions of the classification codes. For example, to find classification codes which have the word 'microcomputers' in the title, use left- and right-hand truncation: *microcomputer*. This retrieves three records indicating that the codes B1265F, C5250 and C5430 deal with microcomputers.

Outline of the Inspec Classification

The following table shows the top two levels of the Inspec Classification scheme:

Code	Title
Section A	**Physics**
A00	General
A10	The physics of elementary particles and fields
A20	Nuclear physics
A30	Atomic and molecular physics
A40	Fundamental areas of phenomenology
A50	Fluids, plasmas and electric discharges
A60	Condensed matter: structure, thermal and mechanical properties
A70	Condensed matter: electronic structure, electrical, magnetic, and optical properties
A80	Cross-disciplinary physics and related areas of science and technology
A90	Geophysics, astronomy and astrophysics
Section B	**Electrical Engineering and Electronics**
B00	General topics, engineering mathematics and materials science
B10	Circuit theory and circuits
B20	Components, electron devices and materials
B30	Magnetic and superconducting materials and devices
B40	Optical materials and applications, electro-optics and optoelectronics
B50	Electromagnetic fields
B60	Communications
B70	Instrumentation and special applications
B80	Power systems and applications
Section C	**Computers and Control**
C00	General and management topics
C10	Systems and control theory
C30	Control technology
C40	Numerical analysis and theoretical computer topics
C50	Computer hardware
C60	Computer software
C70	Computer applications
Section D	**Information Technology for Business**
D10	General and management aspects of information technology
D20	Applications of information technology
D30	General information technology systems and equipment
D40	Office automation – communications
D50	Office automation – computing

Section E	**Mechanical and Production Engineering**
E00	General topics in manufacturing and production engineering
E10	Manufacturing and production
E20	Engineering mechanics
E30	Industrial sectors

To view the lower (third and fourth) levels of the Inspec Classification scheme, see the Browse Classification page.

Inspec Classification – search tips

Classification codes vs. keywords

One code sometimes covers several topics and can thus be easier to incorporate into your strategy than several keywords.

For example, when you are searching for biological effects of radiation, you can use

- *A8750**

to retrieve records dealing with all types of radiation ('*' is the truncation symbol).

Alternatively, you can choose

- *A8750E*

when you are interested in the effects of microwaves, lasers or other electromagnetic waves, or

- *A8750G*

when your main interest lies in the effects of ionizing radiations such as UV, X-ray, gamma ray or particle radiation effects.

Browsing

When you browse through the Inspec Classification on the Browse Classification page, you will be able to locate those subsections of the Inspec Database which are likely to cover your subject(s) of interest.

Each classification record is linked to the Inspec Database. By clicking on the tick-box to the left of a classification on the Browse Classification page and then on the 'Go to Search' button, you will be able to retrieve a set of records indexed by this code.

Improving the search accuracy

Adding a classification code(s) to your keyword(s)

For example, the search statements:

- *Data acquisition AND B7210G*
- *Data acquisition AND C3210G*
- *Data acquisition AND C5520*

will retrieve different sets of records as, in each case, you are searching for data acquisition within a different context (instrumentation, control, and computing, respectively).

(Note: There will be a certain amount of overlap as some records may deal with two or even three aspects of the same topic of data acquisition. Also, in the above example, you could use truncated codes.)

Using truncated classification codes

Truncated classification codes can be used to restrict your search to a broad subject area. These are often sufficient for improving or modifying your search. Thus,

- *Data mining AND C6**

will retrieve records dealing with software, whereas

- *Data mining AND C5**

will search for records dealing with hardware implementation of this primarily software subject.

Commercial vs. scientific journal records

Information technology is a topic covered in both the C and D sections of the Inspec Database. Searching for the same subject in these two sections will result in a different set of records as you will be searching substantially different sets of journals, although there is a certain degree of overlap. The D section journals are of more commercial & economic nature and are likely to be of special interest to managers rather than scientists or engineers whereas the C section journals are of a scientific & research type.

For example,

- *Data mining AND C6**

will retrieve records from journals such as:

- *Int. Journal of Expert Systems Research*
- *IEEE Expert*
- *Data & Knowledge Engineering*
- *Proceedings of the SPIE*

whereas

- *Data mining AND D20**

will find records from more commercial journals, such as:

- *Software Economics Letter*
- *Wall Street & Technology*
- *Management Accounting*
- *Datamation*
- *etc.*

Inspec List of Journals

The Inspec List of Journals contains a list of all the journals scanned from 1969 onwards for inclusion in the Inspec Database.

The Inspec List of Journals has great search functionality. You can search or browse the database to find such things as:

- journals which are currently covered by Inspec
- journals which are abstracted completely by Inspec
- the coverage time span of journals previously scanned
- former titles of journals
- the language in which articles are published
- publisher contact details
- the country of publication

When you select the Search List of Journals page, you enter a search form with a choice of the following searchable fields:

Global Word Search	Contains the words in all text fields of the Journals Database
Country of publication	The country in which the journal is published
CODEN	Contains the CODENs, where they exist, for all journals covered by Inspec
ISSN	Contains the International Standard Serial Numbers, where they exist, for all journals covered by Inspec
Journal Title	This field includes all current titles and titles no longer covered by Inspec. It is word and phrase indexed, and it is recommended that if you can't remember the exact wording in the title of the journals for which you are searching, you should use left- and right-hand truncation. e.g. ***electrical engineering research***
Language	The language in which journal articles and/or article summaries are written
Publisher	Contains the publisher name for each journal
URL	The journal URL (Uniform Resource Locator) for electronic journals on the World Wide Web

Former titles of journals

To find the former title of the journal '*Engineering & Technology*', first type "Engineering and Technology" into the Journal Title field search box. The title must be enclosed by double quotes (" ") to distinguish the word 'and' from the Boolean AND operator. The journal record retrieved shows you that its former title was '*Kogaku to Gijutsu*'. Click on the journal's name hyperlink to obtain full publication details of the former title.

Abstracted-completely journals

A number of journals are central to the Inspec subject field and of a quality such that, virtually without exception, all articles are abstracted. To find those journals covering, say, 'electronics' which fall into this category, type 'electronic?' in the Journal Title search box. ("?" is the truncation symbol for one character) and tick the 'Journals abstracted completely only' tick box. You will retrieve a set of records containing details of journals which have been covered by Inspec since 1969.

If you want to limit your search to journals currently covered by the Inspec Database, click on the 'Current journals only' tick box which appears immediately below the search form on the "Search List of Journals" page.

Specialised Indexing Fields

Astronomical Object Indexing

Astronomical object designations have been indexed in a separate field since 1995. This allows named or numbered objects to be retrieved more efficiently.

The designations are of the following types:

- **Name-based acronyms**. For example, LMC is an acronym for the Large Magellanic Cloud. Objects in constellations, such as R Sct, appear with the IAU-approved three-letter abbreviation for the constellation.
- **Catalogue-based**. A designation containing an acronym for the catalogue followed by the catalogue entry number. This number may be sequential, such as NGC 204, or it may represent an approximate location in the sky, usually in terms of right ascension and declination (such as PSR 1913+16) or Galactic coordinates (such as G 345.01+1.79).
- **Positional information only**. For example, 013022+30233.

An extensive and growing list of catalogue designations is available on Inspec's Web site at: http://www.theiet.org/publishing/inspec/about/records/astronomical/, where the catalogue designations are described by one typical example, a short description of the catalogue content, a general format information entry, and, if available, the number of objects in the catalogue.

Searching the Astronomical Object Index

In this field, special characters (-, +) are searchable.

When working with positional designations, try to include the + or - sign in your search. For example, 1608* will retrieve objects in both hemispheres, 1608-* will restrict the search to just southern objects, and 1608-52* will retrieve objects in just a small patch of the sky.

Search examples

1) ***Question:*** How can I retrieve Markarian galaxies by their designated catalogue numbers?

Answer: Markarian galaxies are designated by Mrk in the Astronomical object index: search for mrk*

[Prior to 1995, you need to search the “Uncontrolled Indexing (UT)” field for mrk, mkn (a prior designation), and Markarian or Markaryan (spelling variants due to transliteration from Russian)].

2) ***Question:*** I am looking for papers on an X-ray source which starts "3A 0322". I can't remember the rest of the position. How can I find references to this source and has it got any other designations in the visible or infrared?

Answer: To find information on the X-ray star with the designation beginning 3A 0322 and also similar representations of the same object at different wavelengths, e.g. visible or infrared, search for 3A 0322*. Some of the retrieved records may show that this object 3A 0322+277 is also known as a variable star in the constellation Aries with designation UX Ari. You can then broaden your search by searching for: 3A 0322+277 OR UX Ari

3) ***Question:*** I am trying to find a distance quoted for the interacting pair of galaxies known as the "Antennae". As this word occurs in many other areas of the Inspec database, is there a neater way of finding this information?

Answer: The galaxies in the interacting pair called the "Antennae" have object designations NGC 4038 and NGC 4039.

Advanced Search page: In the Astronomical Object Index type: *NGC 4038* AND NGC 4039**.

Expert Search page: Type: *(NGC 4038* AND NGC 4039*) <in> AO*

If you do not know the object designations, you can of course, use indexing and classification to restrict the scope of the term ‘Antennae’.

Numerical Data Indexing

Numerical data indexing overcomes the variety of ways in which an author may express a particular value. For example, to find all the references to power stations generating between 20 and 30 MW, values in this range may be expressed: 29.2 MW, 27500 kW, 25 megawatts, 29 MWatt, etc., making it impossible to achieve comprehensive retrieval.

Inspec's numerical data indexing standardizes the display format:

power of 25 megawatts:	**power 2.5E+07 W**
range of 30 Hz to 18 kHz:	**frequency 3.0E+01 to 1.8+04 Hz**

Values are expressed in floating point format, e.g., 1.8E+04 for 18,000 and 9.5E-01 for 0.95.

Each numerical index term has the following format:

Quantity Value (to Value2) Unit

where:

Quantity:	physical quantity, e.g., temperature, wavelength
Value:	actual value or lower value of range expressed in floating point format
Value2:	upper value of range expressed in floating point format
Unit:	SI unit, e.g., metre, hertz, kelvin

The Numerical Indexing Thesaurus lists all the quantities and corresponding units used in this field.

Numerical indexing is only applied to significant data which appears in the title or abstract of a paper when it relates to:

- Relevant and essential operating characteristics or features of instruments, systems and devices, e.g., frequency range of a signal generator.
- Relevant criteria relating to effects, phenomena and processes - mainly experimental or operating conditions rather than values or observations. For example, if a reference describes an experiment to measure variations in pressure with altitude, the altitude range would be indexed.

Searching Numerical Data Indexing

Search syntax

Values can be searched between two and twelve significant figures in the range 10^{-99} to 10^{99} (n.nn... >= E-99 and n.nn...<= E99).

The formats are displayed in the Numerical Indexing field in a standardized exponential form, but various formats are valid for searching, for example:

1.0E-5 1.0E-05 0.00001 0.1e6 1.0E5 1.0E05 1.0e05 1E5 1.00E5 100000

To create exponent expressions, use the format xEy (where x is the multiplying coefficient and y is the exponent). Do not use the “+” sign in your numerical data searches and do not enter the value in quotes (e.g. 4.5E-3 and 4.5E3 are OK, but not "4.5E-3" or 4.5E+3).

Exact value and range searching can be carried out using the following options:

equals (exact values)	=
greater than	>
less than	<
greater than or equal to	>=
less than or equal to	<=

Numerical data may be searched by itself or it may be searched with other search terms or existing search sets using the AND operator.

For information on how to search for numerical data on the Advanced Search page, see the ‘Advanced Search page’ section.

Exact Value searching

For example, to search for radio transmitters operating at a frequency of 900 MHz, convert the value to the unit used by Inspec, in this case Hz.

In Advanced Search	**radio transmitter*** (in Basic Index) and **900E6** (in Frequency Index)
In Expert Search	**radio transmitter* AND FREQ = 900E6** (using the 4-letter field code for frequency, FREQ)

Note that the method shown above for Expert Search will not retrieve items where 900 MHz is included in a range. To overcome this and any problems due to rounding errors, it is advisable to include ranges in your search, e.g. **(FREQ = 900E6) OR ((FREQ <= 900E6) AND (FREQ2 >= 900E6))**

Greater Than searching

e.g. turbogenerators operating at 1 GW or above. In Expert Search:

turbogenerator* AND POWR >= 1.0E+9

This search will exclude ranges which have values below 1 GW:

```
|                       x
|<------>
|           <------->
```

In the above diagram, "|" represents the value typed into the search string, "x" represents a retrieved spot value and "<--->" represents a retrieved range.

To include all individual values greater or equal to 1 GW and similar values included in overlapping ranges, use:

turbogenerator* AND (POWR >= 1.0E+9 OR POWR2 >= 1.0E+9)

```
        |     x
<-----  |     ----->
        |     <--------->
```

Less Than searching

e.g. noise figures less than 4 dB. In Expert Search:

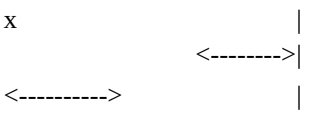
NOIS < 4

This search includes values in overlapping ranges:

```
    x           |
          <-----|   ------>
       <------->|
```

To exclude ranges which have values greater than 4 dB, use:

NOIS < 4 AND NOIS2 < 4

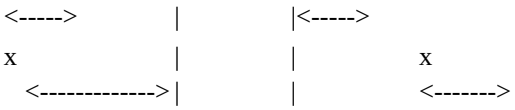


Range searching

1) To search for lasers with emission wavelengths outside the visible range (350 to 750 nanometres) in Expert Search:

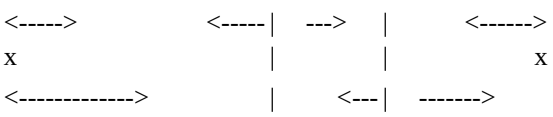
laser* AND (WAVE <= 3.5e-7 OR WAVE2 <= 3.5e-7 OR WAVE >= 7.5e-7)

This search excludes overlapping ranges:



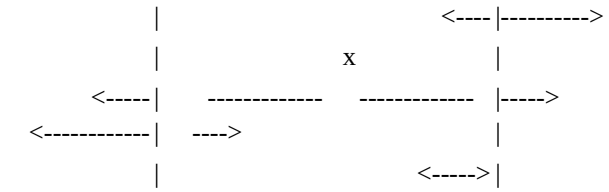
To include overlapping ranges in the search:

laser* AND (WAVE <= 3.5e-7 OR WAVE2 >= 7.5e-7 OR WAVE >= 7.5e-7)



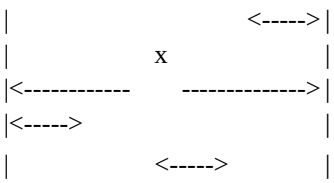
2) To search for frequencies in the range 10 kHz to 10 MHz (including overlapping ranges):

In Advanced Search	**1E4** in From box and **1E7** in To box (in Frequency index)
In Expert Search	**(FREQ <= 1e7 AND FREQ2 >= 1e4) OR (FREQ >= 1e4 AND FREQ <= 1e7)**



To exclude overlapping ranges, use:

FREQ >= 1.0E+4 AND FREQ <= 1.0e+7 AND FREQ2 <= 1e7



Search tips

If you make typing errors when entering a search that also contains the Boolean OR, you may find that you retrieve some results, but not the full set as intended. It is advisable to double-check your search statement before clicking on the search button.

Inspec Numerical Indexing Thesaurus

This Numerical Indexing Thesaurus lists all the quantities and their corresponding units that are used in the Numerical Indexing field. The format is:

> **quantity (CODE): unit symbol** (unit name)
>
> (where **CODE** is the 4-letter search code that is used when searching in the Expert Search screen)

age (AGES): yr (year)
Used for cosmological, geological, archaeological and biological time scales.

altitude (ALTD): m (metre)
Measured from surface (liquid or solid) for Earth and all planetary bodies.
Measured from photosphere for Sun.

foot *use* m [m = feet * 0.3048]
yard *use* m [m = yards * 0.9144]
mile *use* m [m = miles * 1609.344]

amp *see* current

apparent power (APWR): VA (volt-amps)
Used for power ratings or levels of power apparatus, equipment, etc.

astronomical unit *see* heliocentric distance

atmosphere *see* pressure

bandwidth (BAND): Hz (hertz)

bar *see* pressure

becquerel *see* radioactivity

bit *see* storage capacity *or* word length

bit rate (BIRT): bit/s (bit per second)
Used for digital communication rates.

breadth *use* size

Byte *see* memory size

Byte rate (BYRT): Byte/s (Bytes per second)
Used for digital communication rates.

calorie *see* energy

capacitance (CAPC): F (farad)

celsius *see* temperature

centigrade *see* temperature

characters per second *see* printer speed

cm Hg *see* pressure

communications rate *use* bit rate *or* Byte rate

computer execution rate (CEXR): IPS (instructions per second)

computer speed (CSPD): FLOPS (floating point operations per second)

conductance (COND): S (siemens)

mho *use* S

conductivity, electrical *use* electrical conductivity

coulomb per kilogram *see* radiation exposure

critical dimensions *use* size

curie *see* radioactivity

current (CURR): A (amp)

day *see* time

decibel *see* gain, loss *or* noise figure

degrees C, F, or K *see* temperature

depth (DPTH): m (metre)
Measured from surface (liquid or solid) for Earth and all planetary bodies.
Measured from photosphere for Sun.

foot *use* m [m = feet * 0.3048]
yard *use* m [m = yards * 0.9144]
fathom *use* m [m = fathoms * 1.8288]
mile *use* m [m = miles * 1609.344]

diameter *use* size

distance (DIST): m (metre)

inch *use* m [m = inches * 0.0254]
foot *use* m [m = feet * 0.3048]
yard *use* m [m = yards * 0.9144]
mile *use* m [m = miles * 1609.344]

Earth radius *see* geocentric distance

efficiency (EFFY): percent (%)

electric current *use* current

electric potential *use* voltage

electrical conductivity (ELCY): S/m (siemens per metre)

mho/m *use* S/m
$(ohm\ m)^{-1}$ *use* S/m

electrical resistivity *use* resistivity

electron volt energy (EVLT): eV (electron volt)

emf *use* voltage

energy (ENER): J (joule)

cal *use* J [J = cal * 4.1868]
kWh *use* J [J = kWh * 3600000]

energy, electron volts *use* electron volt energy

eV energy *use* electron volt energy

farad *see* capacitance

fathom *see* depth

fahrenheit *see* temperature

feature size *use* size

floating point operations per second *see* computer speed

foot *see* altitude, depth, distance *or* size

frequency (FREQ): Hz (hertz)
Used for all waves: electromagnetic, acoustic, gravitational, etc.

gain (GAIN): dB (decibel)

galactic distance (GALD): pc (parsec)
Used for interstellar distances measured from solar system, not from galactic centre (not galactocentric distances), and for intergalactic distances.

ly *use* pc [pc = ly * 0.3066]

gauss *see* magnetic flux density

geocentric distance (GEOD): m (metre)
Used for magnetospheric scale out to about 100 Earth radii.

AU *use* m [m = AU * 149597870000]
Earth radius *use* m [m=Earth radii * 6378140]

geological age *use* age

gramme *see* mass

gray *see* radiation absorbed dose

heat *use* energy

height *use* size

heliocentric distance (HELD): AU (astronomical unit)

solar radius *use* AU [AU = solar radii * 0.00465424]

hertz *see* bandwidth *or* frequency

horsepower *see* power

hour *see* time

inch *see* distance *or* size

instructions per second *see* computer execution rate

joule *see* energy

joule per kilogramme *see* radiation absorbed dose

K *see* memory size *or* temperature

kayser *see* wavelength

kelvin *see* temperature

kilogramme force/m^2 *see* pressure

kWh *see* energy

length *use* size

light year *see* galactic distance

loss (LOSS): dB (decibel)
Used for attenuation.

magnetic flux density (MGFD): T (tesla)

gauss *use* T [T = gauss * 0.0001]
Wb/m^2 *use* T

mass (MASS): kg (kilogramme)

oz *use* kg [kg = oz * 0.028349]
lb *use* kg [kg = lb * 0.45359237]
ton *use* kg [kg = tons * 1016.05]
tonne *use* kg [kg = tonnes * 1000]

memory size (MEMS): Byte

K *use* Byte [Byte = K * 1024]

metre *see* altitude, depth, distance, geocentric distance, size *or* wavelength

mho *see* conductance

mho/m *see* electrical conductivity

mile *see* altitude, depth, distance *or* size

minute *see* time

mm Hg *see* pressure

newton per square metre *see* pressure

noise figure (NOIS): dB (decibel)

ohm *see* resistance

ohm metre *see* resistivity

(ohm m)$^{-1}$ *see* electrical conductivity

optical loss *use* loss

ounce *see* mass

parsec *see* galactic distance

pascal *see* pressure

percent *see* efficiency

picture size (PICS): pixel (picture element)

pound *see* mass

power (POWR): W (watt)

hp *use* W [W = hp * 745.7]

power, apparent *use* apparent power

power, reactive *use* reactive power

pressure (PRES): Pa (pascal)

bar *use* Pa [Pa = bar * 100000]
atm *use* Pa [Pa = atm * 101325]
mm Hg *use* Pa [Pa = mm Hg * 133.322]
cm Hg *use* Pa [Pa = cm Hg * 1333.22]
lbf/in^2 *use* Pa [Pa = lbf/in^2 * 6894.76]
psi *use* Pa [Pa = psi * 6894.76]

N/m^2 *use* Pa
kgf/m^2 *use* Pa [Pa = kgf/m^2 * 9.80665]
torr *use* Pa [Pa = torr * 133.322]

printer speed (PRSP): cps (characters per second)

psi (pound per square inch) *see* pressure

rad *see* radiation absorbed dose

radiation absorbed dose (RABD): Gy (gray)

J/kg *use* Gy
rad *use* Gy [Gy = rad * 0.01]

radiation dose equivalent (RDEQ): Sv (sievert)

rem *use* Sv [Sv = rem * 0.01]

radiation exposure (RXPS): C/kg (coulomb per kilogramme)

roentgen *use* C/kg [C/kg = roentgen * 0.000258]

radioactivity (RAVY): Bq (becquerel)

curie *use* Bq [Bq = curie * 37000000000]

radius *use* size

reactive power (RPWR): VAr (volt-amp (reactive))
Used for power ratings or levels of power apparatus, equipment, etc.

rem *see* radiation dose equivalent

resistance (REST): W (ohm)

resistivity (RSTY): Wm (ohm metre)

roentgen *see* radiation exposure

sampling rate *use* frequency

second *see* time

siemens *see* conductance

siemens per metre *see* electrical conductivity

sievert *see* radiation dose equivalent

signal to noise ratio *use* noise figure

size (SIZE): m (metre)
Not used for elementary particle or nuclei size.

inch *use* m [m = inches * 0.0254]
foot *use* m [m = feet * 0.3048]
yard *use* m [m = yards * 0.9144]

size, memory *use* memory size

size, picture *use* picture size

solar mass *see* stellar mass

solar radius *see* heliocentric distance

speed *use* velocity

stellar mass (STEL): Msol (solar mass)

storage capacity (STCP): bit

temperature (TEMP): K (kelvin)
Used for absolute temperatures and not temperature differences.

deg K *use* K
C *use* K [K = C + 273.15]
deg C *use* K [K = degC + 273.15]
F *use* K [K = (F + 459.67) * 0.5555556]
deg F *use* K [K=(degF+459.67) * 0.5555556]

tesla *see* magnetic flux density

thickness *use* size

time (TIME): s (second)

minute *use* s[s = minutes * 60]
hour *use* s [s = hours * 3600]
day *use* s [s = days * 86400]
week *use* s [s = weeks * 604800]
year *use* s [s = years * 31557600]

ton *see* mass

tonne *see* mass

torr *see* pressure

transmission speed *use* bit rate *or* Byte rate

velocity (VELY): m/s (metres per second)

volt-amp *see* apparent power

volt-amp (reactive) *see* reactive power

voltage (VOLT): V (volt)

watt *see* power

wave number *see* wavelength

wavelength (WAVE): m (metre)
If a wavelength is given as a wave number either in cm^{-1} or in kayser, then use the following to convert to wavelength in m:

cm^{-1} *use* m [$m = cm^{-1} * 0.01$]
kayser *use* m [$m = (1/kayser) * 0.01$]

weber per square metre *see* magnetic flux density

week *see* time

width *use* size

word length (WORD): bit

yard *see* altitude, depth, distance *or* size

year *see* age *or* time

Multiplying prefixes

Prefix	Abbrev.	Factor	Prefix	Abbrev.	Factor
yotta	Y	10^{24}	deci	d	10^{-1}
zetta	Z	10^{21}	centi	c	10^{-2}
exa	E	10^{18}	milli	m	10^{-3}
peta	P	10^{15}	micro	µ	10^{-6}
tera	T	10^{12}	nano	n	10^{-9}
giga	G	10^{9}	pico	p	10^{-12}
mega	M	10^{6}	femto	f	10^{-15}
kilo	k	10^{3}	atto	a	10^{-18}
hecto	h	10^{2}	zepto	z	10^{-21}
deca	da	10^{1}	yocto	y	10^{-24}

The exception to this rule is in the area of computer memories, where their physical and logical layout means that their sizes are powers of 2. Thus, in specifications of memory size or storage capacity, the multiplying prefixes ‘K’, ‘M’ and ‘G’ have non-standard meanings as follows:

Prefix	Multiplying Factor	As a power of 2
K	1,024	2^{10}
M	1,048,576	2^{20}
G	1,073,741,824	2^{30}

Thus, a 64 KB memory will be numerically indexed as:

memory size 6.6E+04 Bytes

because 6.6E+04 is 65536 to two significant figures.

Standard conversions

Size	Numerical Indexing
0.25 inches	size 6.4E-03 m
0.5 inches	size 1.3E-02 m
3.5 inches	size 8.9E-02 m
5.25 inches	size 1.33E-01 m
8 inches	size 2.0E-01 m
12 inches	size 3.0E-01 m

Chemical Indexing

Inspec's Chemical Indexing is a controlled indexing system for inorganic substances and material systems. It is designed to overcome a number of problems which arise in searching for chemical substances in uncontrolled index terms. These include:

- Non-stoichiometric compounds or alloys which may be represented in several ways, e.g. GaAlAs or $Ga_xAl_{1-x}As$.
- Chemical formulae that have the same spellings as common English words, e.g., GaP (gap), or where chemicals have the same letters and are differentiated by the use of upper and lower case, e.g. Co (cobalt) or CO (carbon monoxide).

Role indicators

To help you distinguish between references to, for example, silicon (Si) as an element and as part of a more complex system, each chemical index term has a role indicator. The role indicators are:

Role	Definition	Examples
el	element	H_2; He; C, Co, Fe, Ga
bin	binary system	H_2O; He-Ne laser; CO; FeCo alloy; GaAs
ss	system with three or more components	H_2SO_4; He-Ne-Ar laser; Fe-Mn-Si-Cr alloy; GaAlAs

Thus, silicon as an element is indexed: Si/el
and silicon dioxide (SiO_2) is indexed: SiO2/bin Si/bin O2/bin O/bin

Some substances may be assigned one or more special roles which are of significance to solid-state physics and electronics. These are:

Role	**Definition**	**Examples**
dop	dopant	Si:P, Nd:YAG laser
int	interface system	$Si/SiO_2/Si$ structure
sur	surface or substrate	Si(110) surface
ads	adsorbate or any sorbate	O atoms on metal surface

Chemical Indexing terms

The indexing terms applied to a substance or material system are:

a) Complete substance or material system with its role: **Au-LiNbO3/int**

b) Any substances or material subsystems contained in a) above: **LiNbO3/int Au/int LiNbO3/ss Au/el**

c) Chemical elements with any numbers associated with composition and their roles: **O3/int O3/ss**

d) Chemical elements and their roles: **Au/int Li/int Nb/int O/int Li/ss O/ss Au/el**

e) Chemical groups such as niobates (NbO_3) with their roles: **NbO3/int NbO3/ss**

The following groups can be searched:

Al2O3	CrO4	MnO4	SeO4
Al5O12	Cr2O3	MoO4	SiO2
AsO4	Cr2O7	NbO3	SiO4
As2O3	FeO3	Nb2O5	SO3
Bi2O3	Fe2O3	Nb2O7	SO4
BO3	Fe2O4	NO2	S2O3
BO4	Fe3O4	NO3	TaO3
B2O3	Fe5O12	PO3	TiO3
B3O6	Ga5O12	PO4	VO3
BrO3	GeO2	P2O5	VO4
ClO3	GeO3	P2O7	V2O5
CO3	IO3	P4O12	WO3
CrO3	MgO3	SeO3	WO4
			ZrO3

Examples of chemical substance indexing

H_2SO_4	H2SO4/ss SO4/ss H2/ss O4/ss H/ss S/ss
P doped Si	Si:P/bin Si/bin P/bin Si/el P/el P/dop
Cu-Al alloy	CuAl/bin Cu/bin Al/bin
Si-Au interface	Si-Au/int Si/int Au/int Si/el Au/el
GaAlAs	GaAlAs/ss Ga/ss Al/ss As/ss
$Ga_xAl_{1-x}As$	GaAlAs/ss Ga/ss Al/ss As/ss
$Ga_{0.25}Al_{0.75}As$	Ga0.25A10.75As/ss Ga0.25/ss A0.75/ss Ga/ss Al/ss As/ss

Search examples

Type	Example	How indexed
Elements as elements	Silicon	Si/el
Elements as dopants	Phosphorus	P/dop
Doped systems	Phosphorus-doped silicon	Si:P/bin
Elements in compounds or alloys	Chlorine in a binary system	Cl/bin
	Nickel in a multi-component system	Ni/ss
Groups of compounds	Niobates (NbO_3)	NbO3/ss
Specific compounds or alloys	HgCdTe	Hg/ss with Cd/ss with Te/ss
	$CaCl_2$	CaCl2/bin
Interface components	Silicon in an interface	Si/int
Specific interfaces	Au-Ge interface	Au/int with Au/el with Ge/int with Ge/el
Surfaces and adsorbates	GaAs surface	Ga/bin with As/bin with Ga/sur
	Ru adsorbate	Ru/ads

Searching Chemical Indexing

General search tips

The Chemical Indexing field is **case-sensitive**, i.e. you must type a combination of upper and lower case letters for the chemical elements.

Many substances can be retrieved simply by using the chemical formula and its role indicator. To enter sulphuric acid (H_2SO_4), type: H2SO4/ss

For materials whose composition can be written in different ways, search for components with their roles.

Subfield searching

For each chemical substance, the Chemical Indexing is displayed in a subfield separated by a semicolon (;), e.g. a record that deals with N_2 and H_2O will have the following chemical indexing:

N2/el N/el; He/el; H2O/bin H2/bin H/bin O/bin

- **(Ga AND As) <in> CI** will search for “Ga” and “As” in the same material substance (i.e. within the same subfield). Only those records containing a chemical substance containing both “Ga” and “As” will be retrieved from this search, i.e. the search will retrieve records containing “GaAlAs” but <u>not</u> records such as those containing both “GaN” and “AlAs”.
- **(Ga <in> CI) AND (As <in> CI)** will search for “Ga” and “As” anywhere within the Chemical Indexing field, in different chemical systems, i.e. the search will retrieve records containing “GaAlAs” <u>as well as</u> records containing both “GaN” and “AlAs”.